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**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MONTANA
BILLINGS DIVISION**

10 UNITED STATES FIDELITY)
11 AND GUARANTY COMPANY,)
12) Nos. CV-04-29-BLG-RFC
13 Plaintiff,) CV-08-29-BLG-RFC
14 and)
15) **VOLUME 6**
16 THE CONTINENTAL INSURANCE) **TRANSCRIPT OF JURY TRIAL**
17 COMPANY,)
18 Plaintiff Intervenor,)
19 vs.)
20)
21 SOCO WEST, INC.,)
22 Defendant.)
23 _____)

**BEFORE THE HONORABLE RICHARD F. CEBULL
CHIEF UNITED STATES DISTRICT COURT JUDGE
FOR THE DISTRICT OF MONTANA**

James F. Battin United States Courthouse
316 North 26th Street
Billings, Montana 59101
Monday, March 15, 2010
08:32:07 to 16:47:38

Proceedings recorded by machine shorthand
Transcript produced by computer-assisted transcription

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MS. JULIANNE ROHM
MR. NEIL BAILEY

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1 PROCEEDINGS

2 (Open court.)

3 (Jury not present.)

4 THE COURT: Please be seated.

5 I have not had an opportunity to review Soco's brief
6 yet, although I hurried through it after I got here. I did
7 notice where Soco pointed out the Ninth Circuit already
8 addressed the propriety of this motion in this case based on
9 the evidence that's substantially the same, if not exactly the
10 same, as material evidence introduced by Soco.

11 I'm going to reserve ruling on this until I get it
12 read, but I most likely will deny it. It will be a jury issue
13 on notice and prejudice.

14 All right. Let's get the jury in here, and you all
15 can start your case.

16 THE LAW CLERK: All rise.

17 (Jury present.)

18 THE COURT: Please be seated.

19 Good morning, ladies and gentlemen.

20 Mr. Johnson, call your first witness.

21 MR. JOHNSON: Your Honor, as our first witness,
22 we're going to call -- we're going to play a videotape
23 deposition of Marvin Johnson which was taken nine years ago,
24 in August of 2001, as everybody will see clearly, before he
25 became ill, and it's a lengthy deposition. And what I would

1 like to do is put the -- there's really only one exhibit that
2 he looked at in his deposition that I think the jury needs to
3 see, and that's the one where he marked the location of the
4 pipe the other day, and so I'd like to put that on a stand in
5 front of the jury and then play the deposition.

6 THE COURT: You may.

7 WHEREUPON,

8 MR. MARVIN L. JOHNSON,

9 called for examination through deposition by counsel for
10 plaintiffs, after having been previously sworn to testify the
11 truth, the whole truth, and nothing but the truth, testified
12 as follows:

13 EXAMINATION

14 Q (By counsel for *Weiss* plaintiffs) "Would you please
15 state your name for the record?

16 A "It's Marvin L. Johnson.

17 Q "And, Mr. Johnson, where do you live?

18 A "At 2517 Roth Lane, Billings, Montana."

19 Q "Okay. I'd like to talk with you real briefly about some
20 ground rules, just so you know how this will go and be
21 conducted.

22 A "Okay.

23 Q "You understand that your testimony today, your sworn
24 testimony, may be used in the trial of this case?

25 A "Yes."

1 Q "Mr. Johnson, were you ever employed at Dyce Chemical in
2 Billings?

3 A "Yes, I was.

4 Q "And did you work at the Dyce facility at 1353 Taylor
5 Place in Billings?

6 A "Yes."

7 Q "And what was your job title at Dyce?

8 A "Warehouseman/tank -- worked in the chemical tank farm.

9 Q "And was that your job title the whole time that you
10 worked at Dyce?

11 A "No. Part of it, I was just warehouse -- a warehouseman,
12 where I went to different places. Later on, after I'd been
13 there, I'd been moved out to the tank farm, so that's where I
14 kind of got -- I don't know if Dyce gave me the handle of tank
15 farm, but that's where I worked. So I think I was recognized
16 as tank farm. Maybe not -- I wouldn't claim to say I was a
17 manager. I was the only person that basically worked out
18 there, but I had a foreman that was foreman of the crew of
19 warehouse people, of which I was one.

20 Q "And how long did you work in the warehouse versus how
21 long you worked in the tank farm?

22 A "The way I recall it, a year or less as a general
23 warehouseman, and then, the rest of the time, pretty much in
24 the tank farm. I did some deliveries in town and some
25 out-of-town deliveries, but that was minute, a very small

1 percentage.

2 Q "And as I understand your description, you weren't the
3 only person that worked in the tank farm?

4 A "That is correct."

5 Q "Were there other people that worked in the tank farm
6 with you that had your same job essentially?

7 A "No, they didn't have my same job.

8 Q "Okay. So you were the only person that was the tank
9 farm foreman when you worked there, or --

10 A "Well, I was the only one that really did the tank
11 farm-type work on a regular basis. Not as a foreman.

12 Q "Okay.

13 A As I got busier -- maybe there was two or three things
14 had to be done, and if I could only do one thing, other people
15 would have to step in and do it. But most -- I probably
16 handled, during the regular business hours, I probably handled
17 probably at least 75 percent of the routine tank farm
18 business.

19 Q "Okay. How many other folks were working at Dyce when
20 you were there, do you recall?

21 A "Oh, we must have had -- office and warehouse and
22 drivers, we probably had 20 people, would be my kind of guess.
23 I'm counting some people who weren't maybe necessarily true
24 employees of Dyce, but we considered them, because they were
25 around a lot, because they were truck drivers for the firm

1 that we used to haul a lot of our chemical. We had roughly 20
2 people there, I believe --

3 Q "And did you know --

4 A "-- at Billings.

5 Q "Sorry.

6 "And did you know those 20 folks? Would you recognize
7 them -- at the time when you saw them, did you know their
8 first names?

9 A "Oh, yes, yes.

10 Q "Did you talk with those folks on a daily basis or --

11 A "Yes.

12 Q "-- just generally?

13 A "Yes."

14 Q "Was Dyce doing a good business when you were working
15 with them?

16 A "A huge business. We were busy all the time. Had an
17 excellent reputation in a three- or four-state area. Not a
18 lot of competition in a lot of stuff that we handled, and, as
19 a result, yes, we were extremely busy.

20 Q "Was it a kind of business that kind of cycled? Was it
21 more busy some times than others, or was it pretty much a
22 constant level of business?

23 A "Well, we had our lags, but overall I'd have to say it
24 was pretty constant. Even the business, even the business
25 that would drop down, for instance, the oil patch work in

1 Wyoming, as an example, and in eastern Montana and some in
2 North Dakota, as those folks slowed down maybe because of
3 weather or whatever, we sold so many other variety of
4 chemicals to other industrial-type companies that bought our
5 chemicals that they picked up the slack when we would be slow,
6 and maybe they'd start getting busier.

7 "I never -- I hope I'm not going too long here, but I
8 worked strictly and exclusively within Dyce Chemical's
9 property for the most part. I didn't go out and see and talk
10 to the customers that we dealt with, so I didn't know their
11 end of the, of the spectrum of their business. So I couldn't
12 truly put the two pieces together. But we kept busy, yes.

13 Q "What was a hotshot situation?

14 A "If a company needed something right away -- we'll say
15 Worland, Wyoming or Colstrip, Montana or Laurel, Montana. If
16 somebody said they had something -- Dyce used kind of a, what
17 we consider a hotshot load, where a customer wants it now and
18 is willing to pay for it. Although I didn't work in the
19 office, you know, common sense tells you they probably charge
20 an extra fee for that because we've got a driver making a
21 special trip to them. Maybe the chemicals aren't drummed up,
22 if it's a product we're drumming. Maybe it's a hotshot load
23 with a tanker. You know, either way or any way, we treated it
24 as a priority.

25 Q "Were you busier when you had a hotshot situation or --

1 A "Well, we were busier because it created instant work. I
2 mean, we -- sometimes we'd have to put our regular routine
3 work to one side to take care of the hotshot work.

4 Q "And did you kind of hustle to get that work done?

5 A "Well, yes, because they wanted it right away so you'd
6 have to hustle, you know. You know, and especially, from my
7 end of it, in the tank farm, if the product wasn't drummed up,
8 if it was something that needed to be drummed, then we'd have
9 to literally get the drums ready and label them if they
10 weren't labeled. You know, there's just a lot of preliminary
11 work to be done to get it completed so it could be put on the
12 truck so it can be delivered.

13 Q "How many hours per week were you working at Dyce?

14 A "Well, it's normally a 40-hour, Monday-through-Friday,
15 weekends-off work, but we were always busy, so one of us in
16 the warehouse would be on call for a week. So I guess if I --
17 I'll just try to answer it. I probably -- most all of us
18 probably worked 45 to 50 hours a week, the way I recall it.
19 Maybe not all the time, but we put in some hours there.
20 Sometimes way more than that.

21 Q "Tell me about being on call.

22 A "Well, I believe there was four basic warehousemen, and
23 each one of us took one week of being on call, and that meant
24 for after hours, which is -- you know, our shifts, I believe,
25 were 8 until 5. So if I was on call, I had a beeper, and

1 literally I was on call for 24 hours a day during that one
2 whole week, so that if at 2 o'clock in the morning a customer
3 called one of our internal salespeople and ordered something,
4 that's how they would do it.

5 "They wouldn't contact the warehouseman. They'd contact
6 somebody within the office, and that person, in turn, would
7 contact, we'll just say, me, since we're talking about me for
8 a minute, but there was other warehousemen doing the same
9 thing as me. And they'd say, 'Marvin, go down. We've got a
10 customer coming in after,' and he'd tell us what.

11 "They would also come down and generate an actual
12 invoice, because most all the time everything was typed up.
13 Very seldom did you see written-up invoices. So somewhere
14 along the way, the person in the office would have to
15 generate, you know, the paperwork.

16 Q "So was it pretty common to get called in when you were
17 on call?

18 A "Would you define 'common' to me? I mean, what --

19 Q "How often did you get called in when you were on call?

20 A "Oh, probably 30 percent of the time.

21 Q "So is that like a day a week, maybe, when you're on
22 call?

23 A "Yeah, a day a week would be a fair evaluation. 'On
24 call' also would mean, at the end of the day and it's now
25 5 o'clock and it's time to go out the gate and a truck comes

1 in or whatever, well, you, as the person that's on call, even
2 if it's not your normal job, you would be staying there to
3 unload that truck. Or if it's a railcar or bags, maybe you'd
4 have to unload it if it had to be done, or whatever. So
5 whoever is on call during that week, he might not get called
6 from home; he might be right on the premises and have to just
7 stay there.

8 Q "When you were working on call, were you generally
9 working alone?

10 A "Usually, the customer and myself, but the customer, of
11 course, he wouldn't be helping you, except for when you start
12 to load his truck. Then he's sort of responsible to make sure
13 that he gives you directions on where and how he wants what.
14 But, yes, for the most part, I'd have to say I'd be working
15 alone.

16 Q "Can you tell the jury what your job as tank farm, or I
17 think you called it warehouseman, entailed?

18 A "Warehouseman. Okay. I come to work at 8 o'clock. If
19 I'm out in the tank farm, which, most of the time, I was,
20 if -- we'll assume there was no customer standing there
21 waiting for something. And there was -- you know, there was a
22 big board that we wrote up all the, either the daily or weekly
23 work schedule of what has to be done or what's going to be
24 shipped out or what's coming in to unload or *et cetera*. So
25 the first thing I do is look on the board. And I know my area

1 of what involves me, and if I see there's a shipment of maybe
2 40, 40 drums of a product, I would first and foremost go out
3 and make sure I have 40 drums filled. Say that the order says
4 it's going to go out Tuesday and this is Monday morning. I'd
5 go out and look at my inventory and make sure that there's 40
6 drums filled. If not, then I'd know that -- I'd sort of make
7 my work schedule according to this written board of what has
8 to be filled in drums now.

9 "There'd be -- I mean, there's bulk loads, full semi
10 loads of maybe one product or three products. I would sort
11 of -- I wasn't asked necessarily to do this, but I guess it
12 came out -- if the office would sell a truckload of a product,
13 I'd go out to that tank, and we had a sight gauge, and when we
14 opened the valve, it had a sight gauge, which would make --
15 tell you where the level in the tank is. I'd make sure there
16 was enough of that product to load that truck.

17 "Because we sold and generated so much stuff that if we
18 have an 8,000-gallon order of a product and I've got
19 2,000 gallons in the tank, it makes sense to let the salesman
20 know before the customer drives 500 miles to get something
21 that we haven't got. And, you know, that happened quite a
22 bit, because we had a limited supply of tanks. I mean, you
23 know, we weren't -- we were a large company, but, I mean, we
24 had limited space. And there was a lot of times when we
25 wouldn't have enough product, maybe -- so I'd go and work that

1 out with the salesman. Maybe they'd take what we have, or
2 what-have-you.

3 "I mean, we had to -- I had to take a lot of things into
4 consideration in my job. I might have a bulk load for --
5 well, I'll use 2,000 gallons, but also on board this same
6 week I might have a customer that wants 80 drums of that same
7 product. You know, I'd have to add up how many gallons is
8 this drum, and how many gallons is this truck, and how much is
9 in this tank, and who wins the argument here. You know, I'd
10 have to -- you know, I wouldn't make the final decisions on
11 that, but I had to consider that in my job, because, I mean,
12 you've only got so much stuff to sell that particular day, and
13 you've got to decide who gets what. And I wasn't the referee
14 on that, but the salesmen were. So that's kind of what I did.

15 Q "So it was your job to take the chemical that you had on
16 the premises at Dyce and package it and get it ready to go out
17 with the customer, or to transfer it to a customer's vehicle
18 or tanker or -- was that part of your job?

19 A "Yes, very much a part of my job.

20 Q "Was it also part of your job to take chemical that came
21 in on railcars or in tankers, or however it came in, and put
22 that in your stock?

23 A "Yes. That, that was probably a lot of what happened.
24 Most of the time, it would have to go into our stock before I
25 could retransport or retransfer it, either from tanks,

1 *et cetera*, to a truck or to a drum. Most of it would be Dyce
2 Chemical's, we'll say, stock available to sell, and then as
3 phone calls and stuff would come in, then the office people
4 would generate invoices, you know, and write it up on the
5 board, whether it would be a bulk -- large bulk shipment or
6 two or three different types of products in bulk, or part bulk
7 and maybe some drums, or *et cetera*.

8 "Another part of my job was -- we had what we called a --
9 let's see. What was it called? -- a pole barn where we kept
10 our existing stock of all of the various product, a lot of the
11 various products that we drummed up and that we sold.

12 "Well, it was my responsibility, just like anything else,
13 to keep the stock at what was established as a reasonable
14 amount of drums. Usually, we'd usually try to keep at least
15 20 drums of most all of our regular moving stuff.

16 "Some stuff, like, example, ethylene glycol, we might
17 keep more of that because we sold a lot more.

18 "Menthanol was another fast-moving product that we -- you
19 know, so I don't want to let my drum stock get down to one
20 pallet, which is four drums, because I know at the end of the
21 day we're going to probably sell 30 or 40 of those drums. So
22 whenever I had free time -- I didn't have to look for it,
23 because I'd just go look in my pole barn and see what's
24 getting low and start drumming it.

25 Q "So part of your job was to monitor the inventory?

1 A "Yes, yes.

2 Q "Do you recall working with PCE or perc?

3 A "Yes. Not PCE. I'm not familiar with that, but perc.

4 Q "Do you remember working with TCE?

5 A "I remember, I remember a product called triethylamine.

6 Now maybe you're calling it something different. I remember a
7 product called triethylamine.

8 "Sometimes, in -- I'm not claiming to be a chemical
9 expert by any extent, but I worked in a business that handled
10 chemicals, and a lot of times we wouldn't use the complete
11 legal chemical name for it.

12 "We -- a lot of times a refinery would want a product
13 which I called DEA. I mean, the office would say, 'Marvin we
14 need 20 drums of DEA or two spins of DEA.' The real name of
15 it was diethylamine, but it's a hell of a lot easier to say
16 'DEA' than it is 'diethylamine.' So a lot of times we would
17 use abbreviations.

18 "Or maybe they were even Dyce Chemical's own little name
19 for it. I don't know. So a lot of times -- like some of
20 those names you said were -- those words are foreign to me. I
21 never handled that product or seen that product the way that
22 you're calling it.

23 Q "Do you remember working with xylene or toluene?

24 A "Yes, a lot. We had two bulk tanks of that.

25 Q "Of which --

1 A "One of each. One xylene and one tank -- one xylene and
2 one toluene.

3 Q "Do you recall working with benzene?

4 A "I believe -- yes. I'm going to say yes, with a reserved
5 yes on that. That name sounds familiar. And we handled so
6 many chemicals. There was some products that are way back
7 there in the back of my mind, and that name sounds like one,
8 but I, I'm a reserved yes on that.

9 Q "How about carbon tetrachloride?

10 A "Yes, we handled that.

11 Q "Okay. Mr. Johnson, I'm going to show you an aerial
12 photo. Do you recognize the area that's depicted in this
13 photo?

14 A "Yes, I do, um-hmm. Yes.

15 Q "And what is that area?

16 A "Well, the picture you've got here, it shows our
17 building. Back in the back back here where the tanks are is
18 where our tank farm is. The main train line that came down
19 this way, and down on this end would be Exxon Refinery to our
20 east probably a half mile. And the train track for our siding
21 came down this way, and that's where I would unload railcars
22 into -- either into trucks or into drums, tanks, *et cetera*.
23 And our office was -- in this picture is right here at the
24 front. And our dock for inside the warehouse, we had a lot of
25 dry, bagged chemical materials, and that's where we have

1 customers back in there to load that.

2 Q "So to the best of your recollection, is this an accurate
3 depiction of the Dyce Chemical property the way it looked when
4 you went to work there?

5 A "Yes, I'd say so.

6 Q "Okay.

7 A "Yeah. Yes.

8 Q "I'm going to have the court reporter mark this as
9 Exhibit 1, if she would."

10 "Mr. Johnson, I'm going to use some labels I have here,
11 or actually ask you to use some labels to mark some of the,
12 some of the portions of the facility that you just described
13 for me.

14 A "Okay.

15 Q "Can you tell me where the perc tank was when you worked
16 there?

17 A "Okay. The warehouse was here. And down in here, down
18 below, we called, what we called the shop, that's where we
19 kept our forklifts that our maintenance guy worked on. Come
20 out the door --

21 Q "Okay. Why don't you mark that as 'Shop.'

22 A "(Complied with request.)

23 Q "Can you put a 1 --

24 A "Now I might be wrong in this. The shop might have been
25 attached to the main building there. It seems to me like it

1 was kind of a separate building, so I'm assuming what I'm
2 looking at is this.

3 "What did you ask me to do? I'm sorry.

4 Q "Well, you wrote 'Shop' on there. Put a 1 on there, too,
5 if you would, so we can have kind of a running index here.
6 We're going to look at a bunch of different areas.

7 A "All right."

8 Q "Can you show me where the xylene and toluene tanks were?

9 A "I can. But let me ask you this. Is this photograph I'm
10 looking at, is this during the -- do you know when this
11 photograph is?

12 Q "I'm not going to represent anything about the photo to
13 you. If you're able to, from what you see here, recognize
14 where you think things were at the time when you started work
15 there --

16 A "Um-hmm.

17 Q "-- go ahead and answer the questions. If you can't do
18 it, that's fine. Just tell me you're not sure.

19 A "I know where the tanks were when I worked there, and
20 I -- you know, the picture is a little blurry, and I can't
21 really see where I recall them being. Would you like me to
22 show you where I think they -- I mean, where they should be?

23 Q "Sure.

24 A "Because it seemed like -- you know, they were upright
25 tanks like this. And my drumming -- where I did my drumming

1 is right in here, and they were right beside my -- well, they
2 might be, they might be -- well --

3 Q "It's okay if you're not sure.

4 A "Well, wait a minute. Here. I'm getting focused now.
5 Here. This is the KOH tank, so maybe -- yeah, they'd be right
6 here.

7 Q "Okay.

8 A "It's just taking me a while to kind of zoom in on where
9 I am on this.

10 Q "Can you place that sticker at the location?

11 A "It would cover the tank. Do you want me to put it over
12 the tank so you won't see it?

13 Q "That's okay.

14 A "All right. And should I mark number 2 on this?

15 Q "Number 2, please.

16 A "(Complied with request.) And I'm putting that as xylene
17 and toluene.

18 Q "Can you tell me what this dark shape in the north part
19 of this photograph is?"

20 A "Back in the farm, back behind our tank farm, we had a
21 big pond. We called it the catch pond. The ground kind of
22 sloped back. We had a couple trenches going back that way, so
23 if we, if we did spill anything or anything got spilled, or
24 when we rinsed off things, it would go down, down to this. We
25 called it a catch pond. It would catch water as well as

1 anything else, obviously, too, so it was full of a lot of,
2 actually a lot of water, you know, because of the rain and
3 things, but any chemicals that we had spilled or rinsed out
4 or, *et cetera*, would also go down in that area. So that would
5 be what I'd call -- we, the warehouse guys -- called the catch
6 pond.

7 Q "Could you mark that with the sticker and label it number
8 3?

9 A "(Complied with request.)

10 Q "Did you ever go out and look at the pond, itself?

11 A "Numerous times.

12 Q "Do you recall if the pond was lined?

13 A "Yes, because a lot of times, the -- it had a dirt dike
14 around it that was probably, oh, a 3-foot dike, I guess you'd
15 call it, all the way around it. And you could see the lining
16 up onto the dike as the moisture, and especially in the hot
17 summer, water would evaporate, *et cetera*. So it would be
18 down, you know, 1 or 2 feet from the top down, and so you
19 could see the sides of it.

20 "And what you could see of the sides on the lining, it
21 was cracked, like -- you know how you see landscaping at a
22 home, over a period of time, plastic deteriorates, and it
23 would be all cracked and busted up and --

24 Q "So it was a plastic lining that was on the bottom of the
25 pond?

1 A "That's what I would say it was, but I wasn't there when
2 it was built, and I didn't certainly climb down in and inspect
3 it real close, because, you know, it was yucky-looking old
4 stuff.

5 "But, I mean, you could see, you could see where it
6 had -- you know, I would call it a lining, but, there again,
7 over a period of time and nature and everything else, it had
8 deteriorated to the point where at least what you could see
9 was hardly anything left of the lining. But down underneath,
10 I couldn't say what it looked like.

11 Q "Now I might have misunderstood you earlier. Was the
12 water level above the top of the lining, or did the lining
13 extend up above the level of the pond?

14 A "It looked like the lining might have at one time
15 extended clear to the very top of the dike, but, there again,
16 I'd say that the dike -- and the lining, you know, was -- had
17 broken, become brittle and nonexistent over part of it, just
18 because of weather and the environment and everything else.

19 "But, yes, I'd say the lining probably went clear to the
20 top. Very little of it was left up towards the top, or it was
21 mostly exposed to the elements and the sun and the wind and
22 the rain. So there was only pieces of it here and there, you
23 know. But as you get down closer to the level, it looked like
24 the thing might have been more solid.

25 Q "So did you see places in the pond where the liquid in

1 the pond was actually exposed to the soil?

2 A "Well, there again, it would be difficult to see that,
3 the way you're asking it, because the liquid would be, the
4 liquid would be under -- I mean, any lining would be in
5 between the liquid and the earth, and you couldn't, you
6 couldn't -- I mean, it was muddy, yucky, like anything would
7 be. So you couldn't really tell what the condition of the
8 lining was in, oh, say, the bottom half of this pond. The
9 only thing you could see was up along the sides, and that was
10 deteriorated.

11 "As the pond would ever, the level would ever go down low
12 enough where you could see the lining more, but most of the
13 time, it would stay at kind of a stable level. But if it
14 would ever drop, you could see, and whenever it did drop more,
15 there again, it was all cracked and broke, too. Not -- I'd
16 have to say it was probably in very, very poor shape, the
17 lining, that I could see.

18 Q "Did that pond ever fill up?

19 A "Yes.

20 Q "And what happened when it was full? Did it overflow?

21 A "One of two things. If we, 'we' meaning any one of us in
22 the warehouse, or management would tell us to do it, or
23 whatever, if we didn't do something about it, if we got enough
24 rain or snow melt or whatever, it would theoretically go over
25 the top. We usually tried not to let that happen. That's why

1 we'd have to go out and watch that pond once in a while.

2 Q "And what did you do to keep it from flowing over the
3 top?

4 A "They had a -- there again, this came in after I was
5 there. I mean, before I was working there. But they had put
6 a pipe in there with a valve so that you could open the gate
7 valve, and then that would drain the pond down. And that pond
8 would drain out into the, into a pasture that was on the,
9 which would be the, yeah, kind of the north, northwest corner
10 of the pond. This valve pipe went out and then just, the pond
11 would just drain out onto the pasture.

12 Q "Can you mark on this photograph about where you think
13 that drain field is?

14 A "That pipe? Okay. Almost where this -- kind of where
15 that -- the way I recall it, kind of where that arrow was
16 pointing. It seemed like it was on that one side, because it
17 went to this pond. So should I put --

18 Q "Can you mark a number 4 on that?

19 A "(Complied with request.)

20 Q "Were you ever told to drain the pond into that field?

21 A "Yes.

22 Q "By whom?

23 A "I've had numerous supervisors, but whoever was the
24 supervisor would tell me. Probably, on occasion, other people
25 in the office, you know, upper management-level people, like

1 Monte Naff. Monte was really more, Monte Naff or Jim Diede
2 was really more involved if it came to making, telling us guys
3 to do something like that. And Dave Warne, to some extent,
4 would do that, too. But more would be Monte Naff or Jim
5 Diede.

6 Q "And -- go ahead.

7 A "Most of the time, those gentlemen I just mentioned, they
8 usually wouldn't come and tell me directly. They would go to
9 my supervisor. Then my supervisor would either come out and
10 him and I would go out and do it. It wasn't just a -- it
11 wasn't any one given person's problem to babysit this pond.
12 The supervisor, he might go do that.

13 Q "Who was your supervisor?

14 A "Well, I've had several of them. At the beginning of
15 employment, there was a name Mark Carpenter. Let's see. Mark
16 Carpenter was my first one I had as a supervisor. Then there
17 was a kid by the name of Greg -- I'm going to say Greg
18 Hartman, I think, was his name. There was another one. Doug
19 Johnston was another one. I'm trying to say this in order. I
20 might be wrong.

21 "Another one was Gary. Gary, something like Gary
22 Cornwell. Something of that nature. I don't remember that
23 last name of his. That's the four that I remember.

24 Q "Do you recall how often, say, in a year, you might
25 personally drain that pond?

1 A "That's hard. It can't really be answered, because it
2 all depended on nature. It depends on how much rain we had,
3 or snow, if the snow melted, and rain, and/or how much we
4 had -- we had to rinse out a lot of drums and clean things.
5 Well, the more water we used, you know, obviously the more
6 water would get down to the pond and the faster it would fill,
7 but --

8 Q "So when you rinsed drums, did the rinsewater drain to
9 that pond?

10 A "Yes. Everything we -- all water led to the pond from
11 our area pretty much.

12 Q "When you rinsed out hoses, did the water drain to that
13 pond?

14 A "Yes.

15 Q "When you flushed out pumps, did the water drain to that
16 pond?

17 A "Yes.

18 Q "When you cleaned off minor spills, did the water drain
19 to that pond?

20 A "Yes.

21 "Excuse me, Jory, but I want to kind of -- maybe this
22 will make it a little clearer for everybody to understand. I
23 guess we, the warehouse guys at least, that's why we called it
24 a catch pond, because it caught or caught anything that we
25 would spill or rinse or anything. As far as we were concerned

1 and I was concerned, that was the purpose of that thing, is to
2 catch everything. And that's why we called it the catch pond.

3 Q "Do you have any way to estimate how often during the
4 time that you worked there you might have drained that pond
5 into the field?

6 A "Total time, probably 30 times.

7 Q "Do you expect that the other employees that did the same
8 kind of work that you did did the same amount?

9 A "I'm including that count in on them, too.

10 Q "Oh, okay.

11 A "You know, that 30 is whether I did it or somebody else
12 did it or -- you know, I recall -- and that's not an exact
13 count. That's just by memory. That's just a quick guess, you
14 know. But, yes, other employees had to drain it, also. Not
15 30 times for each employee. That, to my knowledge, is
16 probably roughly 30 times total in the six to eight years that
17 I worked there."

18 Q "How far towards the bottom of the pond was the pipe?

19 A "I don't know because I've never seen the bottom of the
20 pond.

21 Q "And what did you do when the pipe got clogged but you
22 still needed to drain the pond?

23 A "What I did, if that happened, then it became not my
24 problem. I'd tell my supervisor, because I had other work to
25 do, and I wasn't there to babysit a piece of pipe draining

1 into a pasture for hours, so I'd tell my supervisor, and I was
2 done with it then.

3 Q "Did you ever watch anyone else deal with that situation?

4 A "Yes.

5 Q "And what did they do?

6 A "Oh, tap on it, try to shove something in it to clear it
7 out. Things of that nature. You know, maybe take a -- what
8 do you call it? -- like a rebar, a steel rebar or something
9 like that that's like quarter-inch diameter and shove it up in
10 the pipe as far as they could to kind of try to get it like
11 that.

12 Q "Did that, did that liquid that got pumped out of that
13 pond into that field have toxic chemicals in it?

14 A "Oh, I'm sure it had traces of numerous things in it. I
15 mean, yeah, I don't know. I never analyzed it. But common
16 sense is it would have to have some. Something happened to
17 that. When I'd take a 20-foot length of hose that I just
18 unloaded a truck with and rinsed out that hose and, I mean, if
19 I'd let the hose, garden hose run for a minute or two and
20 tried to rinse them chemicals off, that's what they did. They
21 went down and went to the catch pond. Whether or not air
22 evaporated or whether it sunk to the bottom or what happened
23 to the chemical, the trace, the small amounts that I'm talking
24 about here, what happened to it, I have no idea.

25 Q "Did anyone at Dyce do anything to make sure that the

1 water that was drained from that pond didn't have harmful
2 chemicals in it?

3 A "No.

4 Q "You don't remember any testing of that water being done
5 before it was drained out?

6 A "No.

7 Q "You don't remember any filtering of that water being
8 done before it drained, that liquid, before it was drained
9 out?

10 A "No.

11 Q "What did the liquid that drained out of the pond look
12 like?

13 A "Like pond water. You know, slimy, yucky, smelly --

14 Q "What did it smell like?

15 A "-- greenish black.

16 "It just stunk. A little bit -- I wouldn't want to say
17 sewer water, because, you know, sewer water has its own odor.
18 It had more of a -- a water pond that's been sitting around
19 for years, you know, not being generated, just sitting there
20 and added and subtracted to all the time, you know.

21 Q "Do you recall or do you have any reason to know when
22 this policy of draining the pond into the field began at Dyce?

23 A "Ever since I started working there. I mean, it had to
24 be drained. If you ignored it, it was going to go over the
25 top eventually. So, I mean, it was a matter of having to do

1 something with it. You couldn't just pretend like it didn't
2 happen or didn't exist, because the pond was there. And if we
3 got much rainwater and things like that -- nature took care of
4 the decision-making of the pond more than Dyce management or
5 us or anybody, because if we got a lot of rain, the pond would
6 fill up a lot. For what little bit of water that we at Dyce
7 used to rinse drums, hoses, *et cetera*, that in and of itself
8 didn't fill that pond full. Nature filled, you know, with
9 water from rain and snow moisture, filled that pond up more
10 than anything else.

11 Q "And were they still draining -- was Dyce still using
12 that pond and draining it into the field when you left
13 employment there in 1988?

14 A "Well, it still existed, but they had also built another
15 concrete -- and, there again, I'm going to call it a, well, a
16 rinse pond. I'll call it a rinse pond. They built a concrete
17 rinse pond on the east side of our property, not in the
18 pasture, but out where we kept our drums and stuff. They made
19 two twin concrete pads which was supposed to eliminate some,
20 quite a bit of the stuff from the catch pond. We'd go and
21 rinse our drums and hoses in this concrete skid-type pits.

22 Q "Can I have you stick a sticker on the place where you
23 recall these concrete ponds being?

24 A "Well, you know, I don't think your picture -- either
25 your picture doesn't show it or this gray area out here is so

1 gray that -- but let's see. I'm going to put them out here
2 even though it doesn't show it.

3 Q "Okay. And can you label that No. 5?

4 A "(Complied with request.)

5 Q "And how -- describe those catch basins for me, if you
6 would.

7 A "Oh, they were approximately -- there was two of them.
8 They were twins and identical, and each one -- I'll describe
9 one and then multiply that by 2. They were approximately
10 40 feet wide by 100 feet long, starting at the top. They were
11 sloped at a pretty sharp angle. I'm not real good on math, so
12 I don't know what kind of angle that was, but it -- oh, maybe
13 a quarter of -- I don't want to say a degree, because I don't
14 know what kind of a slope they were. But they were at a slope
15 with concrete walls around them that tapered and got higher as
16 the slope met to the bottom of the pit. And then they were
17 coated with some kind of a coating, rather than a plastic
18 lining, but an actual -- it wasn't tar, but it would be
19 something like tar, but it wasn't tar. It was much better
20 quality, I'm sure. I didn't paint it, but they had it lined
21 with concrete. Concrete people came in and built that for
22 them, and they had it lined with some kind of a coating.

23 Q "And what were these catch basins used for?

24 A "Well, the purpose was either to rinse drums, hoses,
25 *et cetera*, and pour it down there so that it would be

1 contained. And then, over a period of time, maybe it would
2 evaporate, the stuff we poured in there would just evaporate
3 and go away.

4 Q "Did it work?

5 A "No.

6 Q "Why not?

7 A "Well, if you take a cup of water and pour it on your
8 driveway, that's probably going to evaporate. If you take
9 3,000 gallons of water and pour it in, you're not going to get
10 so much evaporation because by the time you get evaporation,
11 nature is going to come and pour more water into that pond and
12 it will never catch up. So as a result, what happened with
13 these two catch, concrete skid tanks, ponds, they'd wind up
14 filling a lot -- we had some of the same problems as we had at
15 the old pond. They'd get so full we couldn't even use them,
16 because over a period of time the water would keep backing up
17 and backing up, so it came close to the top of where we
18 started to slope. So I couldn't use it because the water was
19 filled up so far that if I started rinsing drums, in a matter
20 of a little while, it would be totally full. So, no, in my
21 estimation, it didn't work at all.

22 Q "What did you do when those catch basins became full?

23 A "I had other things to do than worry about that, so I
24 didn't do anything about it. I'd tell management or my
25 supervisor, you know, tell Dyce people, you know, and then it

1 became their problem.

2 Q "Did you ever see anyone go out there and try to deal
3 with the catch basins once they were full?

4 A "I tried to stay out of it, so, no. I mean, maybe they
5 did, but I had plenty of things to do, so I really -- I didn't
6 worry about those two.

7 Q "Do you know if the catch basins ever overflowed?

8 A "I can't really say one way or another. I do not know.

9 Q "Do you know if anybody drained the catch basins?

10 A "To my knowledge, I don't believe so, but, there again, I
11 don't know. We pretty well quit using these after we seen we
12 created a monster and it didn't work. We pretty well had quit
13 using them because they were ineffective for what they were
14 designed for.

15 Q "Can you recall how long they were used?

16 A "Oh, probably one season. Probably maybe three or four
17 months while I was there."

18 Q "Do you recall times when those catch basins would have
19 overflowed if some action wasn't taken to get the liquid out
20 of them?"

21 A "Yes. They would overflow unless something happened.
22 One of the things we did to not have that happen is we quit
23 using it. And hopefully we'd get warm weather and we'd get
24 evaporation faster than rain would come down and pour on it.
25 But we pretty well quit using them as rinsing out drums and

1 hoses just because they were so full. But I don't recall ever
2 having to actually drain those two new concrete pits."

3 Q "Can you mark the area for me where semitrucks would
4 bring product in to drop it off or to pick it up?

5 A "Well, there's about three different places we did that.
6 The primary -- I'll mark the primary place. Let's see.
7 That's the shop. That would be -- it would be, it would be
8 right in here.

9 "Okay. It would be right in this area here where trucks
10 would back in, because this shed here had all of our pipes and
11 our plumbing and everything. It went back to all the various
12 tanks here, and it also went over here to the railcar siding.
13 So in the event that we're out of a product but we have a
14 railcar sitting here, you know, of that product, I could have
15 the semitruck park here, have my hose hooked to the bottom or
16 top, whatever, of the railcar and then go right from the
17 railcar right over and into the tanker truck.

18 Q "So can you mark the area where the semitrucks would stop
19 to be loaded or unloaded as number 7?

20 A "Okay. Number 7?"

21 "That's one place I want to take a note of. That's not
22 the only place. But 80 percent of the trucks got loaded or
23 unloaded right there at No. 7.

24 Q "Where else did trucks get loaded and unloaded?

25 A "Sometimes we'd -- at the very beginning, we might have

1 three, four, or five railcars sitting here full of products.
2 For various reasons we couldn't unload them right away, either
3 space or time, and maybe we'd have a customer needing a
4 product, and maybe the tank is empty, and maybe the tank --
5 the railcar is sitting here, and the switch people can't come
6 out soon enough to get the thing switched around. So then, in
7 that case, we'd have to hook right where the railcar is and
8 have the semi come over right beside the rail, the railcar, or
9 the rail lines and hook right directly into a -- his truck or
10 his trailer from the railcar.

11 "And then we'd, we'd either use what we call a portable
12 pump -- it's just like it says. It was a portable pump.
13 Electrical run, most of the time. Or sometimes the trucks
14 will be equipped with their own pumps, and we'd hook hoses up
15 to the railcar and the trailer.

16 Q "Was that portable pump designated for just one
17 particular chemical?

18 A "No, it was, it was used for multiple chemicals other
19 than corrosives, such as sulfuric acid or hydrochloric acid.

20 Q "Did you ever use that pump to move perc?

21 A "Perc had its own pump.

22 Q "Did you ever use that pump to move xylene or toluene?

23 A "On a rare occasion, maybe, but there again, those --
24 xylene and toluene had its own pump and lines.

25 Q "How about carbon tetrachloride? Did you use the pump to

1 move that?

2 A "Yes.

3 Q "And what did you do with the pump after you used it?

4 A "Rinsed it out.

5 Q "And where did that rinsewater go?

6 A "To the catch pond."

7 Q "Where were pumps and hoses stored?

8 A "Could you rephrase that in a different way?

9 Q "Was there one central area where portable pumps and
10 hoses were stored?

11 A "Okay. Portable pumps and hoses, after they'd been --
12 alongside where we had the shop, which is number 1, after I'd
13 rinse the hose, we had a little device that we'd pull the hose
14 up and let it, so it would finish draining out, and after --
15 and, you know, let nature evaporate and everything. When that
16 hose was done and I was done with that hose and I felt it was
17 dry and ready to be put away, we had a rack inside the shop
18 where we kept hoses, and we basically only had one portable
19 pump that we mostly used, and that would be in the same
20 location right there by the shop door, where the water was,
21 one of the outlets, which we used primarily. I'd rinse it
22 out. After it was dried, I'd put it back in the shop until I
23 needed it again.

24 Q "What kind of chemicals did you move with those hoses
25 that were located in the shop?

1 A "All your alcohols got -- like menthanol; isopropyl
2 alcohol, which we called IPA; acetone; xylene; toluene. More
3 your flammable-type products, if I'm not thinking of all of
4 them. But those are primarily the ones. That's one set of
5 products.

6 "Another set of products is your glycol products, such as
7 EG, ethylene glycol; antifreeze; TEG, which is triethylene
8 glycol. Glycols of that nature.

9 "And what else did we have? Propylene. We had another
10 product called PG, which was propylene glycol, but they were
11 all glycol families.

12 Q "Did perc get moved into those, in that hose or those
13 hoses?

14 A "Yes and no.

15 Q "Explain.

16 A "Theoretically we had our own line for perc. Perc had
17 its own pump. Perc had its own line, I called it; you know,
18 feeder line. And so if a customer or a Dyce truck, either
19 one, needed to be loaded, or a drum needed to be loaded, most
20 of the time I could just use the existing stuff. But say I
21 was loading one truck, or a skid or whatever, with perc, and I
22 had another customer that wanted something else, and they
23 couldn't wait, then you'd hook up the portable pump and get a
24 different kind of hose and do that. And you'd have to go
25 underneath the truck or whatever, you know. Those are -- that

1 was a rare occasion, but, yes, it did happen.

2 Q "Any notion of how many times it might have happened in
3 the years that you were there?

4 A "Oh, 20 times.

5 Q "What did you do with the portable hose when you were
6 done moving perc through it?

7 A "Rinse it out, hang it up on the hose rack until it was
8 rinsed out and dried, and put it away on the hose rack in the
9 shop.

10 Q "How much rinsewater would it take to wash one of those
11 hoses out?

12 A "Twenty or 30 gallons of water, I suppose, would go
13 through it. Usually do it for just a minute or so, you know.

14 Q "Was there product left in the hose? Was there perc left
15 in the hose when you rinsed it out?

16 A "Oh, I probably -- I didn't analyze it. You know, I
17 didn't -- but I'd have to say there probably was traces of
18 some left in the hose. Sometimes I might not rinse a hose
19 off. I might just hang it right on the hose itself, let the
20 chemical drain out of the hose, free-fall or drain naturally
21 out, and then let the air and atmosphere, you know, dry -- if
22 I didn't need that hose again, I'd let nature dry it out on
23 its own; you know, leave it out there. I might just leave it
24 out there all day and, at the end of the day, put it away.

25 Q "If you rinsed it out, did that rinsewater go somewhere?

1 A "Into the catch pond.

2 Q "What about cleaning the pump after moving perc with it?

3 A "Well, I'd first drain it into a bucket. You know, I've
4 just now -- I'm realizing I'm drawing a picture here which is
5 not entirely correct, and I'm going to correct it. I don't
6 mean each and every time Dyce had us drain all of the hoses
7 and all the stuff. We tried to catch everything we could, but
8 when we had minute stuff of chemical left, we had to get rid
9 of it, and the only way we could get rid of it is drain it. I
10 mean, I'd have a bucket, maybe, and I'd try to, out of the
11 hose, I'd catch what I can in the bucket, or in the portable
12 pump, which is real heavy. I imagine that pump, I imagine
13 that pump weighed 100, 150 pounds, so you couldn't just pick
14 it up, you know, like this, but you could put a bucket
15 underneath the outlet and go on one end. But it is plastic.
16 If you're working by yourself, it's kind of difficult to take
17 a 200-pound product -- or a pump and tip it up and try to
18 drain it in there and not tip over the plastic bucket or have
19 the plastic bucket collapse because of the weight.

20 Q "Did that happen to you personally?

21 A "Oh, yeah. I mean, it has to, because, you know, it's an
22 awkward situation. So the way to do it, the way we did it,
23 we'd only fill the drum or the pail maybe a fourth or half
24 full. We'd have several of these buckets around until we'd
25 get the pump drained as best as we could.

1 Q "What did you do with those buckets when you --

2 A "We'd pour it back into the -- if it's a drum we were
3 filling, we'd put it in the drum. Or into the bulk tank, we'd
4 put it into the bulk tank, things like that."

5 Q "Did you use a bucket as a catch basin when you were
6 rinsing product out of a hose, rinsing perc out of a hose?

7 A "No.

8 Q "That just went right onto the ground?

9 A "Right. Because by the time I got to the point where I
10 was rinsing the hose, if I was to catch all the liquid of the
11 product that was in there, it would probably equal a small
12 cup. I mean, you know, it might be 6 or 8 ounces of whatever.
13 I mean, there was -- it wouldn't have been worth trying --
14 well, that sounds bad. I mean, it was such a small amount
15 that I don't know how a person would catch that small amount.
16 I guess if there's two people there working on it, it could be
17 done, but it would be extremely hard for one person to catch
18 that small amount.

19 Q "What was the ground like in the area where hoses got
20 rinsed?

21 A "Good, because after we got done rinsing them, we'd rinse
22 off the ground, too, you know, to have -- wash the whole area
23 where you just cleaned hoses or pumps, so -- I mean, it --

24 Q "Was it dirt?

25 A "It was black asphalt. And over the period of time that

1 I worked there, the asphalt was getting worn and eaten up by
2 the amount of years of use. But it was black asphalt over
3 dirt. Very thick asphalt. Probably 4- or 6-inch thick
4 asphalt, because we had big 80, 100,000-pound trucks coming in
5 there, so -- you know, I wasn't there when they built the
6 asphalt, but I'm sure they had rebar and reinforced and
7 everything.

8 Q "So when you, when you rinsed -- when you put rinsewater
9 on the asphalt, how was it that it made its way to the catch
10 pond? Was there a ditch?

11 A "There was -- the way I recall it, it was at least two
12 ditches made. Up right here by the shop, which is number 1,
13 at the end of the shop right in here where all the trucks are,
14 there was a ditch that was squared -- part of it was concrete
15 lined, and then once it got out here a ways, it was just the
16 dirt, and that ditch would go back to the catch pond.

17 Q "Can you draw that in for me?

18 A "On --

19 Q "Go ahead and draw it right on that map.

20 A "Let's see. Where am I at here? (Complied with
21 request.)

22 "And then there was another one right about like here.
23 In fact, part of this picture, this might be the ditch I'm
24 talking about, right there. And then we had metal grates over
25 where trucks would drive. We had metal grates over both of --

1 well, over this one, because it came out into where the trucks
2 were. Back here was -- there was no traffic back here because
3 it was off where trucks wouldn't drive.

4 Q "Can you label the ditch, the eastern-most ditch that had
5 a metal grate over it, number 10?

6 A "Yeah.

7 Q "And can you label the other ditch, which you just
8 described, number 11?

9 A "(Complied with request.)

10 Q "I want to talk to you for a bit about moving perc with
11 skid tanks. When you worked at Dyce, did you ever see perc
12 spilled when you were using skid tanks?

13 A "Yes.

14 Q "Can you tell the jury how you witnessed perc being
15 spilled when you were using skid tanks?

16 A "A lot of times, working in the tank farm, I'd be -- that
17 would be one of my jobs, was to fill the skid tank. We had a,
18 we had a young fellow up -- we had a fellow in one of the
19 warehouses up above, he made most of the city deliveries out
20 of our truck, which was, I think, a 1-ton truck, flatbed. It
21 had metal sides on it, but it was basically a flatbed. So I'd
22 have to load the bulk skid tank with perc, weigh it, and then
23 I'd have to put it on the flatbed, our pickup, city delivery
24 pickup. So I filled the perc.

25 Q "Can you describe what a skid tank is?

1 A "Well, there's various sizes, but the one we're talking
2 about with perc, it was basically somewhat square. If you
3 could visualize taking your refrigerator at home and, with a
4 chainsaw, cutting it in half, it was roughly, oh, probably
5 3-foot long, probably 2 feet wide, and probably 3-foot deep,
6 and it held approximately 150 to 200 gallons of product. So
7 it wasn't super large. But perc is an extremely heavy
8 product, so -- see, perc weighs around 12 or 14 pounds per
9 gallon, so it's twice the weight of water.

10 Q "So how did perc spill when you were using, when you were
11 filling the skid tanks?

12 A "Wouldn't have any spillage much when I'm filling the
13 tank because that was a real cut -- that was a real easy
14 situation. We had a perc tank. We had a perc line that was
15 metal, plumb-, actually plumbed in. Hook it to the -- my
16 drumming nozzle, and the top of the skid tank had like a
17 3-inch plug which was unscrewed. You know, I could easily see
18 the product. I'd fill it until it was, you know, within the
19 top level where we felt it was safe and good, a couple inches
20 down from the top, I guess. Shut my pump off. What we'd call
21 reverse it, which would suck the line back, which would leave
22 all -- you know, take all the perc product out. And if there
23 was any product in that line, it wouldn't matter because that
24 line was, for one thing, perc only. So I put a cap on the end
25 of it, and it was contained. I'd have a trace amount left in

1 my drumming nozzle because when you reverse the pump, it can't
2 possibly suck every ounce and particle out, but what was left
3 I would rinse off.

4 Q "Rinse off onto the ground?

5 A "Onto the ground, yeah.

6 Q "Can you estimate how much you would rinse off in a case
7 like that?

8 A "On a one-time basis?

9 Q "Yeah.

10 A "Two ounces.

11 Q "So just a small amount.

12 "Was perc spilled when you were disconnecting and
13 bringing product back?

14 A "There's where we had more of our problems with our skid
15 tank situation, because -- you've got to understand. I, for
16 the most part, stayed on the premises. I didn't go with the
17 product and the skid tank and the truck to the drycleaners.
18 The city, the city delivery person did that. So he would be
19 the one that could -- although I have been involved with it,
20 I've gone with them, I've, on occasion, made it, so I know
21 some of the problems, but I didn't do it regularly.

22 "But the way I recall it, one of the problems we had,
23 when we got all done filling the customer's delivery of this
24 from the skid, our skid tank to his container or whatever, is
25 we had no way of reversing the pump to suck it back into our

1 tank like we did when we were on site at our premises. So
2 we'd have an inch and a half, I believe it was, hose, which
3 was on a reel, which was maybe 100-foot long, because we'd
4 park in the alley, or maybe out in the street, or wherever we
5 had to make our delivery, so we'd have to reel this in to
6 wherever we're loading it. When he's full, you shut your pump
7 and your valve off. Well, now you've got a whole bunch of
8 product all the way in the line. Well, it's contained because
9 you've got the valve shut off and the pump shut off, but
10 you've still got the product all in that hose. So then you'd
11 go and load it back on the truck, and you'd reel it back in,
12 and you hope that the valve doesn't get bumped and open the
13 valve, which, that does happen and has happened.

14 "But, anyway, you get back to the plant, our place. Then
15 you usually leave the product in the hose -- in the tank
16 itself, because that's all that tank is used for. But we'd
17 try to drain the perc from the hose reel into our skid tank.

18 "But it was kind of a -- it was an ugly mess. I mean, it
19 was -- there was no real easy way of doing it. A lot of times
20 I wasn't involved with that because the city delivery kid -- I
21 call him a kid because he was younger than me, but he wasn't a
22 kid. But the city delivery person, he usually had to take
23 care of that. Sometimes he'd ask for help and I'd go over to
24 help him, if it's a matter of holding up a hose or things like
25 that, but overall he took care of most of that.

1 Q "Did you ever see perc spilled during that process?

2 A "Yes.

3 Q "Tell me about that.

4 A "Well, if you've got 100-foot of hose and it's got
5 product, full product in it, I would guess -- this is just a
6 guess -- that, well, just say that's, we'll say that's
7 20 gallons of perc. Well, something's got to happen to that.
8 We're trying to drain it back into the skid, and just like a
9 garden hose at home when you're walking it, you can't always
10 control it. You're working with something with heavy product.
11 The hose, the chemical hose is heavy, and you're trying to
12 keep the drumming nozzle down into the thing so it doesn't
13 jump out while you're doing it. And if you're doing this by
14 yourself, it's a hard task to do. If everything works right,
15 it works fine, but if the hose jumps out or the valve you've
16 got into the skid gets bumped or when you're moving it, it
17 comes out, well, you hurry up and close it up. But, I mean,
18 so, yes, it does happen. It did happen.

19 Q "Do you know how often perc was spilled that way?

20 A "Per week, per month, per year, or the time I was there?

21 Q "Per week.

22 A "There again, it depends on whether or not we had any
23 deliveries of that. But, well, see, we might go along and not
24 have any deliveries for two or three weeks, so I guess I can't
25 really say per week. I mean --

1 Q "How about per year?

2 A "Yeah, I'd feel better on a yearly basis because I could,
3 you know, have a longer period to make a guess. Probably five
4 times in a year."

5 THE COURT: Get to a place where we can stop this.

6 MR. JOHNSON: This is fine.

7 THE COURT: Let's take a break.

8 (Recess taken from 09:37:57 to 09:52:03.)

9 (Open court.)

10 (Jury present.)

11 THE COURT: Please be seated.

12 Go ahead.

13 Q (By counsel for *Weiss* plaintiffs) "Would that be five
14 times in a year where you were there and you saw it and had a
15 part in it, or five times where you just -- you think it
16 happened when someone else was doing it?

17 A "No, five times when I know it happened.

18 Q "Do you think it happened when you weren't there since
19 you weren't the person doing it most of the time?

20 A "I'd have to speculate and say yes, probably some was
21 spilled.

22 Q "Was it usually done by one person draining that hose
23 back into the skid tank?

24 A "Yes.

25 Q "And that's the time when it was most -- those were the

1 conditions under which you were most likely to spill, when you
2 were trying to do it by yourself?

3 A "Yes.

4 Q "How much would spill when you had a spill that way?

5 A "Five gallons.

6 Q "Five gallons of perc.

7 A "(Nodded head affirmatively.)

8 Q "And where did it go?

9 A "In those trenches as you go down to the catch pond.

10 Q "When it spilled out, did it spill onto the asphalt, or
11 did it spill onto open dirt?

12 A "Usually, whenever, whenever we were handling this perc
13 and the skid and everything, we usually parked it right over
14 this number 10, ditch, which came out over where truck traffic
15 went, which had a metal grate, and we'd park right over that
16 metal grate.

17 Q "Why did you do that?

18 A "Well, so if you did spill it, it wouldn't be out on the
19 dirt, and it wouldn't be on the asphalt. Perc acted on
20 asphalt just like xylene and toluene. It would eat it up, you
21 know. So we tried to park it over there as opposed to
22 somewhere else on the asphalt because if you spill the perc
23 onto the asphalt, it just worked against the asphalt. So we
24 parked it over the grate so it would, you know, be contained
25 there and go down to our catch pond.

1 "We also tried to catch it with buckets as much as we
2 can, but I'm talking about things that you don't want to
3 happen, you know. Maybe the -- when you're pulling the
4 fitting off, it comes out too fast, or it comes apart where
5 you don't want it to, or the hose drops when you're not ready
6 for it to drop, you know. Because when you're working by
7 yourself -- and a lot of our -- you know, we were a very busy
8 crew. We each had our own jobs to do. So a lot of times you
9 didn't work with a buddy system. You were on your own. If
10 you really needed help, you could try to go and ask for help,
11 but most -- you know, the male gender, we're all proud guys,
12 and so a lot of times, we -- rather than ask and be a weak
13 person, you know, you do it yourself, you know.

14 Q "What percentage of the time when you were personally
15 doing this yourself do you think you spilled perc on the
16 ground?

17 A "What, percentagewise?

18 Q "One in 10 times?

19 A "Yeah, that would be good one, 1 in ten, yeah.

20 Q "Is that your best guess, your best estimate?

21 A "Yeah, that would be a good one, very fair estimate. One
22 in 10 would be very good. For small-quantity spills. Not
23 major.

24 Q "And what do you design as a small quantity spill?

25 A "Well, scientists would disagree with me, but when I'm

1 handling the product, if I -- on that kind of a situation, if
2 I dropped, oh, a quarter or a half gallon of it on the ground,
3 I thought I've done pretty good. When it -- when some sort of
4 an accident has happened, if I've contained it to just a
5 quarter or a half gallon, I'm pretty happy with that, as
6 opposed to two or three or five or six gallons, you know.

7 "And, believe me, we as employees and as Dyce, both, we
8 didn't -- we weren't a sloppy -- I mean, we didn't treat this
9 stuff, chemicals, as water. I'm not trying to draw a picture
10 that we didn't care what happened. We, I'm saying Dyce and
11 me, we didn't treat it as water. It was a chemical, and we
12 respected it as best as we could with the tools and what we
13 had to do it with. But under them circumstances, things were
14 getting spilled. It had to. When you're working alone on
15 some of these kinds of projects, how you have to do it, you're
16 going to spill something. It's going to happen.

17 Q "Could you have spilled less if you worked with other
18 people on this process?

19 A "Oh, of course. Yes.

20 Q "Did you ever ask Dyce management if you could have teams
21 to do this?

22 A "When we'd have warehouse, what we called warehouse
23 meetings, I mean -- I'm not trying to be evasive in answering
24 your question, but you've got to understand. We all know it
25 gets dark at night and it gets light in the daytime. Some of

1 this stuff is real common knowledge. Somebody shouldn't have
2 to be told stuff like this.

3 "If you did bring it up -- and I did bring things. When
4 I worked on things like this, in the warehouse meetings I
5 would bring it up. But the normal response was, first of all,
6 'Everybody's got their own job to do, and they're doing their
7 job. You do your job.'

8 "Another way or another kind of an answer I'd get
9 would -- or not me, because it wasn't just me. Another thing
10 is, 'We don't' -- you know, 'There is nobody to help you.' I
11 mean, and some of the time that was true. Maybe the city
12 delivery guy, he's out in Billings, the Billings area, making
13 a delivery. We have an over-the-road -- when I say
14 'over-the-road' truck driver, I don't mean a big semi truck,
15 4-wheel -- 18-wheeler. I'm talking -- we had a 2-ton truck
16 that made either hotshot loads or larger type delivery loads
17 that were out of town.

18 "And maybe if that driver was gone -- because he was also
19 a warehouseman. When he has a delivery, he'd kind of fill in
20 and help whoever needs help.

21 "So there's two bodies out of four or maybe five that are
22 not even on the premises. Well, when that happens, you're
23 down to a crew of three, and you can just do the adding real
24 quick there. You're even busier now. So there was not a lot
25 of bodies to go around and ask for help when you needed it.

1 "If it was a push comes to a pull and it was something I
2 absolutely couldn't do, then I would go find help, or I
3 wouldn't do it until I did get help. But if -- you know, you
4 try to do your job as much as you can without help."

5 Q "Can you give me your best estimate of the number of
6 times in a year that a truck, parked in the area that you've
7 labeled number 10 on our photograph, Exhibit 1, spilled more
8 than 2 gallons of perc?

9 A "In the years of employment?

10 Q "In the years that you worked there.

11 A "Ten or 12 times.

12 Q "Do you recall any other ways, other than the ways that
13 you've already described, that perc was spilled when you were
14 moving it back and forth from skid tanks?

15 A "Oh, yes, the abby-normal situations. If you've got a
16 drum that you've filled, a 55-gallon -- let's say a drum.
17 Drums are 55 gallons. A 55-gallon drum filled with perc,
18 which is -- boy. It's been a while since I've been there. It
19 seems to me they could weigh around, oh, 1,200 pounds, I
20 think, because it was extremely heavy product.

21 "And if the drum leaked -- sometimes, you know, because
22 drums are, I think, welded, or something, and they've got a
23 seam, and down at the bottom they're seamed and stuff, and
24 occasionally you're going to get a drum that leaks. You
25 aren't going to know it leaks until you've filled it with a

1 product. It's pressure-tested or -- I'm sort of guessing at
2 some of this stuff. But I think the drum people that
3 manufacture and make drums, when they make it, they must
4 pressure-test them or something, I would think. But when they
5 come to us, they're ready for us to use, and rarely do we get
6 a drum that leaks. But when you do, there ain't nothing you
7 can do to stop it from leaking. If the hole's up -- if it has
8 a pinhole or the leak's up on top of the drum, you know, you
9 can tip it over or roll it over to the -- say the drum on
10 the -- is leaking right there, well, a quick way to solve the
11 problem is tip it over on its side so that, you know, it can't
12 leak. But if it's at the bottom, you have no choice but to
13 get that product out of that drum and transfer it either to
14 another drum or to a skid tank.

15 "And when you transfer stuff from one product -- you
16 know, for instance, a drum to a drum, you're susceptible to
17 leaking or to spilling it, because, there again, you might be
18 working by yourself again, and you're working with an
19 extremely heavy, heavy drum. And even though you might be
20 using a forklift to help you pick it up, there have been many
21 times where I've had to use -- yeah, we're on camera -- I've
22 had to use a metal funnel that the top of it is about as big
23 as an open-mouth bucket, and it goes down to like a funnel
24 shape. Well, that's all fine and dandy, but when you pour
25 product into it and you're handling a metal drum that's heavy,

1 it can either squash or, you know, the funnel can wiggle or
2 jiggle or whatever. Well, then whatever's in that funnel
3 splashes and goes out onto the ground here or wherever you're
4 working. And that happens a lot, because it's hard to juggle
5 two or three things at one. And the one area that was really
6 the weak link in that was this wiggly funnel that you're
7 trying to pour the product into to hurry and get it into the
8 drum because you've got a drum that's leaking. So you're
9 trying to do the right thing, but you spill product doing it.

10 Q "Do you recall if that ever happened with perc?

11 A "Yes. That's what I'm talking about, perc.

12 Q "When you say it happened a lot, what do you mean?

13 A "Well, I use the word 'a lot' because if you're, if
14 you're doing it the way I just described, using a funnel,
15 having a drum that you're trying to drain, almost every time
16 you use that darn funnel, if you're by yourself, anyway,
17 which, a lot of times, you are, you spill the product because
18 you've got a big funnel and you've got a drum that weighed --
19 oh, I think those, I think those drums, empty, by themselves
20 weighed around probably 50 or 60 pounds, and then you add your
21 weight of whatever you've got inside of it, after you've
22 transferred most of it, and you're trying to finish draining
23 it. So, you know, you -- each and every time you do that, I'd
24 say you might spill some.

25 "Sometimes you might get lucky and do everything just

1 right, and the product doesn't come out too fast and you won't
2 spill any.

3 Q "How much might you spill? How much would you commonly
4 spill in a situation like that?

5 A "Oh, a quart, splashing, you know, or slipping over or
6 rushing out too fast and going over the sides where you can
7 tip the drum back so you don't get -- have it flowing as much.

8 Q "How many times during your employment there did you move
9 perc that way?

10 A "Fifty times.

11 Q "Were there other people working there that moved perc
12 that way?

13 A "Yes.

14 Q "Any notion of how many times?

15 A "I'm going to say I can't comment on that, because I
16 wasn't working with them, you know, so I, I don't know how --
17 you know, I didn't really pay attention to them, what they
18 were doing. I was too busy, and so I, I can't really say."

19 Q "Okay. Let's talk for a bit about perc spills associated
20 with offloading chemical that comes in in bulk. How was perc
21 delivered to Dyce?

22 A "Basically what I remember, two ways, and the most common
23 way was by semitruck. Usually the semitruck usually had at
24 least two or three compartments, and each compartment would
25 have maybe a different chemical in it, because we would be

1 just like any other business. They wouldn't order one thing,
2 and they might order three chemicals. They might have one
3 compartment -- we usually called them -- well, I don't think
4 'we.' I think the trucking industry called the first
5 compartment on a tanker was Compartment No. 1, and the middle
6 one would be No. 2, and the end one would be No. 3; or, if it
7 was a four-compartment trailer, same thing. So we might have
8 perc in No. 2 compartment and maybe No. 1 had a different
9 product.

10 "So we'd unload the 2,000, we'll say, 2,000 gallons in
11 No. 2 compartment. I'd unload that from the trailer into my
12 bulk storage tank. Or another way it would come to us, we
13 might get a, if our tank was totally, pretty close to totally
14 empty, I'd get a railcar from the siding down here --

15 Q "Let's talk about the semis for a bit --

16 A "Okay.

17 Q "-- or the tanker trucks. Did you ever see perc spilled
18 when you were offloading chemical off of a tanker truck?

19 A "Not as much, because that's pretty well self-contained.
20 That's a pretty well-done, clean deal. Once you've hooked
21 your pump and your hose and the trailer of the truck to your
22 tank, it's continuous flowing. There's no disconnecting for
23 any reason until it's totally empty, until the trailer's
24 totally empty.

25 "Well, then the hose is sucking the product right into

1 the hose -- into the tank, so you've got most everything
2 emptied now in the trailer and out into the hose. You might
3 have traces amount left in the trailer that won't -- you know,
4 you can't stand there forever holding the hose while it's
5 trickling in. Plus, eventually you'd lose your prime anyway.
6 The pump won't finish sucking. After it gets too much of a
7 gulp of air, it finally quits functioning.

8 "So then you go ahead and finish draining the hose and do
9 what we call a walk. We pick up the hose, which would be
10 full. We'd walk it into our pump, and it would drain almost
11 all the hose into that line and go into our tank. Then we'd
12 shut the valve, which stopped the product from flowing out,
13 and then we'd shut the pump off, keeping this hose up in the
14 air so it wouldn't -- so any traces amount of hose left won't
15 go onto the ground.

16 "And you're doing this by yourself, usually. If the
17 driver's there, he might help you a lot of times, because it
18 takes anywhere from a half an hour to maybe an hour and a half
19 to do this.

20 "So a lot of times, the driver would either go in his
21 sleeper or go up in our break room until I'm done, and then
22 I'll go find him.

23 "And when I'm all done, I'll have this hose -- we'll call
24 it a 20-foot hose -- that I just used for perc, and although
25 it's been sucked dry, there's still some product in there.

1 Well, you're going to ask anyway, so I'll save you the
2 trouble. It might be a quart of perc left in that. So now
3 I've got a quart of perc. What do I do with it? Well, I'll
4 put it in that bucket here for a catch bucket. So I'll pour
5 it into that bucket.

6 Q "And then what do you do with the bucket?

7 A "From there, I'll put that bucket either into a drum of
8 perc or into a skid. If I have that skid tank that we talked
9 about earlier, I'll put it into a skid tank.

10 Q "Okay. How did perc come in on railcars?

11 A "Okay. It would come in as -- that's all, of course,
12 that would be in -- railcars, they're not split like a tanker
13 truck trailer. It's got one product. We'd get a load or a
14 railcar of perc. I'd hook my -- I always had -- let me
15 understand, let me -- so you understand, when they're hooking
16 a railcar to the tank farms, those tanks here, even though
17 they're plumbing to those various tanks -- when I say
18 'plumbing,' rigid, solid plumbing that goes right to that tank
19 with usually 2-inch galvanized pipe. But you've still got to
20 go from the belly or the bottom of the railcar. If it's what
21 they call bottom-loaded, you've still got to go from the
22 railcar to your existing pipe. And that's usually, oh, it
23 depends on the situation, where the railcar's been spotted and
24 stopped, but that's usually at least a 10-foot length of hose
25 to make your connection from the car to your pipeline.

1 Q "Did you ever see perc spilled during the process of
2 offloading it off of a tanker?

3 A "Same situation as the truck. Very little, because it's
4 a clean deal. Once you've hooked up your hose to the railcar,
5 hooked up your hose to the line, unless you have a leak at the
6 fitting or a leak in the hose, once you got it pumped and you
7 turn your switch on and it starts flowing, you just come back
8 there and periodically watch it and make sure nothing has
9 developed. But for the most part, if you don't initially have
10 a leak, it's usually continuous with no problems until it's
11 empty.

12 Q "Did you ever see a leak, a perc leak?

13 A "Oh, yeah. You, you periodically have leaks of any kind
14 of wet liquid, whether it be chemical or water or -- you know,
15 you're going to have problems.

16 Q "How often, how often would you have a valve or a hose
17 leaking with perc?

18 A "Oh, maybe, maybe in ten times that I'm handling perc
19 through hoses and stuff, maybe two out of those ten times I
20 might have some sort of a leak.

21 Q "And does a leak usually -- I mean, is it leaking like a
22 pint, or is it leaking like a gallon over the course of the
23 whole time you're --

24 A "Why don't you ask one question? Because it depends on
25 the leak --

1 Q "Okay.

2 A "-- and the reason for the leak. When I -- usually,
3 these fittings, and we're speaking, I'm speaking of where I
4 worked at Dyce, we used 2-inch hoses. Trucks usually came in
5 to us, they had 3-inch. So first of all -- well, we're on
6 railcars. Excuse me. And that's a different situation.

7 "We had a hub that we'd screw in there, and it was a
8 2-inch outlet so my hose would go in there. Then it had a
9 rubber gasket very similar to your garden hose for your lawn
10 at home, a rubber gasket. If your gasket was worn or broke
11 or -- what do you call it? -- brittle from getting dry or
12 cracked -- maybe you don't know this -- you can kind of try to
13 feel the hose or the rubber gasket, and maybe you can't always
14 notice it. Then you hook it up, pull it -- it had two ears.
15 You clamp it down, and that closes the rubber to the fitting
16 and tightens it up. Well, then you open up the valve without
17 the pump being on so then you've got just gravity. Well, if
18 it doesn't leak there, then your chances are pretty good it
19 didn't leak, so then you turn on the pump.

20 "But maybe the pressure on that fast flow will start
21 showing a leak. And, yes, it would be a very small leak in
22 that situation. Maybe a pint. And you're right there
23 watching it, anyway, so you shut things off. You disconnect.
24 Now you've got a product full of line that's right there. So
25 you hold the thing up in the air, and you've spilled some by

1 the time you got it to the belly of the railcar to get it up
2 higher than the line, so you maybe have dropped another pint
3 or so on the ground, which you couldn't avoid.

4 "Then you replace the gasket using -- Dyce furnished us
5 with uniforms, or work clothing, we'll call it, and so we had
6 good, big pockets and stuff, so I always carried some of these
7 2-inch rubber gaskets with me because that -- 80 percent of
8 our hoses, unless it was a different -- it depends on the
9 product, but most of our hoses used the same kind of a gasket.
10 And periodically you'd just take and throw these -- with a
11 screwdriver, you'd pry it out and put a new gasket in, you
12 know, if it looked bad or if it felt bad. You wouldn't do it
13 each time because sometimes they may last for a long time.
14 But that's part of the reason why we'd rinse them, because if
15 you didn't rinse this stuff, the hoses would start to become
16 brittle and the gasket would become brittle if you didn't
17 rinse them off and get some of that product off. So that was
18 part of the reason why Dyce had to rinse them, also.

19 Q "So that kind of spill would happen, in your estimation,
20 two out of ten times?

21 A "Two out of ten times when I was handling product I would
22 spill some product on the ground --

23 Q "And then every time --

24 A "-- or it would leak.

25 Q "Where did that product go?

1 A "Well, if it was at the railcar, you know, two steel,
2 metal rails, and underneath the belly, that was just railroad
3 ties, and then there was gravel and dirt underneath there, and
4 that's all there was there. So if it spilled there, there
5 wasn't room enough for us to put a bucket under there because
6 of the clearance from where the belly of the railcar comes
7 down to where you hook up, and, you know, you have to make a
8 bend. There wasn't very much distance between the ground
9 level and the very bottom of the railcar, so I'm going to
10 estimate that as, oh, maybe 14 inches of height. So there
11 wasn't a lot of room to put anything under there to catch any
12 spill, you know, like a bucket. I mean, if you put a bucket,
13 it had to be real little, and that ain't going to hold very
14 much.

15 Q "Would it be common to have a spill that would be more
16 than a half bucket under there?

17 A "No. If you're right there at the time it happens,
18 you're -- you shut the valve off, and 99.9 times, you're
19 catching most all of it. I mean, you're shutting valves off
20 so it doesn't leak much.

21 Q "So you could have used a half bucket or something like
22 that, potentially?

23 A "Yes.

24 Q "But as a matter of practice, Dyce employees didn't?

25 A "Yes, they didn't.

1 Q "When you washed those hoses out and washed the gasket
2 off that you've described, where did you do that, and where
3 did that rinsewater go?

4 A "Same, same place as where it's always been. Right here
5 at the end of the shop, we had a hose rack, and that's where
6 the garden hose was, and we rinsed -- we tried to do
7 everything at this one spot. I mean, it was a -- we had a
8 safety wash there so in the event we got some splashed in our
9 eyes, or it was an acid, which is a completely different
10 situation, if you got some on your skin, you'd have a place to
11 rinse things off and stuff.

12 "But for the perc we're talking about, we did it right
13 there because the perc tank was right there, the railcar was
14 right there, and it was just, you know, the right place to do
15 it.

16 Q "Let's go back for a moment and talk about the two
17 different size hoses that you used to offload perc off of the
18 semi trucks.

19 A "Okay.

20 Q "You were talking about having to do some kind of joint
21 there?

22 A "Yes.

23 Q "Tell me about that.

24 A "Well, a semitruck would come in, and unless it was a,
25 unless it was a chemical, I mean, a chemical coming from a

1 factory, most of these tanker trucks, you know, they're made
2 to haul lots of different commodities. And I, you know, I've
3 only worked at one chemical place, so I can't speak for the
4 industry all over the nation, but at our place, at Dyce
5 Chemical, for the most part, what we considered standard was
6 2-inch. Well, if you pull in with your truck and you have a
7 3-inch, then I've got to reduce from your trailer down to my
8 size. Well, the only way you can do that is what we call a
9 reducer coupling. You know, you go from 3-inch, and it hooks
10 onto the truck with 3-inch, and then it comes down to a 2-inch
11 so it will accommodate my 2-inch hose size. So you've got
12 two, obviously right there, you've got two extra fittings and
13 joints that theoretically could leak if you're going to have a
14 leak.

15 Q "Did you ever see those joints leak with perc?

16 A "On occasion, they'll leak. And most of the time, it was
17 the same thing again. It was usually that gasket. Not all
18 the time, but sometimes.

19 Q "And were those 1- or 2-quart leaks like the railcar
20 leaks?

21 A "Yes.

22 Q "And did those leaks get collected, or did they go onto
23 the ground?

24 A "There, I had more room to put catch buckets and stuff,
25 so most -- we'd catch most of that, not -- couldn't catch it

1 all because you can't predict where the -- you know, if it
2 leaks up here by the trailer, it's going to -- liquid is going
3 to follow a -- you know, something to follow. And maybe,
4 maybe you've got your bucket here. Well, if there's a
5 3-inch -- 3-foot loop from here down to here, that product is
6 going to follow that hose down, and then it's going to drip
7 there. Well, maybe you didn't have a bucket down there. You
8 know, you can't anticipate all this stuff.

9 Q "So what's your best estimation of the percentage of the
10 time that perc actually got spilled on the ground when you
11 were, when you were pulling it off of semi tankers?

12 A "Oh, I feel real comfortable saying 2 out of 10, or put
13 it as a 20 percent, if you want to do it that way. A small
14 amount, you're going to have leakage.

15 Q "And a small amount, in your mind, is?

16 A "One or 2 quarts.

17 Q "And where was the ground that that perc would actually
18 end up on?

19 A "Well, if it was here, that's asphalt, blacktop.

20 Q "Okay.

21 A "If it was over by the railcar where -- if it leaked,
22 that was gravel and dirt in between the two railcars, or
23 tracks.

24 Q "What would you do if it leaked on the asphalt?

25 A "Rinse it off with a hose, water hose.

1 Q "And then that water would go into one of the ditches?

2 A "Correct, and then go down to the catch pond.

3 Q "Okay. When you were working at Dyce, did you commonly
4 put perc into drums?

5 A "Yes.

6 Q "Tell me, tell me about that process.

7 A "Well, we had a room about half -- if you cut this room,
8 which is probably -- well, we had a drumming scale shed that
9 was -- oh, what was it? It was probably about -- it was kind
10 of square, so we'll say it was a 10 by 10 square. And various
11 products were plumbed into this room. And a pallet, which is
12 4-foot by 4-foot, normally. I mean, that was our size
13 pallets; a 4 by 4, we called it. Four drums would fit on
14 that, and we'd put that on the scale with a forklift. We -- I
15 shouldn't say 'we' because most of the time I did it. I put
16 it on the scale, back away, come over -- and if it was perc
17 I'm loading, there's a line that comes in from the perc tank,
18 an enclosed, self-contained, steel, galvanized line that goes
19 from the tank through a pump, which puts your pressure, which
20 comes into my drum shed.

21 "And then I have, I have like about a, oh, 3- or
22 4-foot-long drumming hose, we called it. Say this is the wall
23 and there's a round, circular hose here. I hooked my hose up
24 to it here. On this end there's a drumming nozzle, and
25 there's four drums. The drumming nozzle fits down into the

1 drum. And I've got a scale here. And say I'm putting
2 eight -- I want -- a drum of perc, I think, weighed 11 or
3 1,200, say 1,200 pounds. So I watch my scale. I don't have
4 to worry where the level is because the weight tells me it's
5 the right amount. And when I get at 1,200 pounds, there's a
6 digital-read light or -- light, and then I'd shut it off and
7 go to my next drum and fill and so on and so on. You have
8 very little spillage with that the way I'm describing. I did
9 that all the -- a lot of my job, filling those drums just the
10 way I just described.

11 Q "Did you ever see perc spilled when you were using it
12 with drums?

13 A "Oh, yes. Occasionally.

14 Q "And how did that occur?

15 A "Well, say I've got four drums sitting on a pallet on the
16 scale. I usually always turned the four drums so that what we
17 called the bungholes, that's where the product is drummed,
18 we'd put them so they'd be all in the center so I wouldn't
19 have to go around to all four drums. Well, if you've got a
20 leak -- say you've got a drum that's leaking on the outside
21 corner. It's nearly impossible to know or see it, because you
22 can't see it, and you can't smell it because the area -- you
23 might have a mask on so you're not breathing them airs. So
24 you don't -- you can't see, nor can you smell that perc that's
25 leaking out of that drum.

1 "Then you get the four drums filled. You put the cap on
2 and get on your forklift, pull it out. Well, then, you might
3 notice some liquid on the ground, which means you've got a
4 leaky drum.

5 Q "Did you ever have that happen to you?

6 A "Yes, it happens. Yes, I've had it happen.

7 Q "Any notion of how many times it might have happened to
8 you in the time you worked there?

9 A "For that product?

10 Q "For perc.

11 A "Perc? Oh, ten times. Like I want to emphasize, too,
12 that drums very seldom leaked. These are -- we didn't reuse
13 drums over and over again as a general rule. These drums
14 were -- came from a professional factory that had
15 reconditioned or had sold us new drums. And, I don't know,
16 you can check with the drumming people what their requirements
17 or what their specifications are on that, but I would think
18 they would be pressure-tested and all that stuff, because we
19 very seldom have leaks. But we did have leaks, you know,
20 occasionally. Rare occasion would be a good word to say.

21 Q "Did you ever have any -- what's your best estimation of
22 the amount of perc that spilled each one of those ten times
23 that you saw it leaking?

24 A "I'm going to have to answer that two ways. If it's an
25 immediate thing, where I -- where it's discovered that it's

1 leaking right as we filled the product in, we might, we might,
2 by the time we correct the situation -- which, we responded
3 immediately when we'd see that. We don't put it to one side
4 and say, 'Well, I'll get back to it later.' We handled that
5 kind of stuff immediately. Maybe, again, we might -- by the
6 time we get around to figuring out how we're going to transfer
7 it -- we had numerous ways of handling it -- we might spill,
8 we might spill a gallon that way. When I say 'spill,' spill
9 where I can't catch it with a bucket and it's on the ground.

10 Q "Is that a small spill?

11 A "Under that, under those emergency conditions, I would
12 say that's a small spill. I'm not saying it's acceptable, you
13 know. I'd rather not have spilled that, but it's not -- but
14 if we, if we caught the drum and got it all transferred and
15 lost a gallon out of that whole process, that was pretty good.

16 Q "You said sometimes you didn't, you didn't catch it right
17 away, though?

18 A "Correct.

19 Q "How much would spill in a case like that?

20 A "Well, you might, you might get a drum, a 55-gallon drum,
21 and you filled it, you set it aside, and say I'm filling 20
22 drums. That's five pallets worth. After I've got 20 drums
23 filled and I'm over there finishing, putting the caps on and
24 dust-capping and all that, if I happen to notice the drum
25 leaking then, well, I'm going to transfer it. But it's

1 already been sitting there for a half an hour to an hour,
2 leaking, so it might have lost some. Or maybe it didn't leak
3 at all, then. Maybe putting it in the pole barn, where we
4 store our stock merchandise, maybe the heat expansion and
5 contraction has worked against that metal drum and caused a
6 leak that wasn't initially there.

7 "And if it wasn't discovered or seen or smelled or
8 somehow where you notice it leaking, you know, I might -- one
9 day you might come after a drum of perc and I'll go to get a
10 drum, and it might be half full. Well, what's happened to it,
11 it got a leak and it leaked out. I'm not --

12 Q "Did you ever see that happen?

13 A "I shouldn't have said half, because very rarely did that
14 happen. But, I mean, we'd have drums that would leak in the
15 pole barn, when they're sitting there, of perc. And, yeah,
16 I've seen times where a drum has leaked some out, but not
17 half. I shouldn't have used the word 'half' in that instance,
18 because we normally didn't keep many drums of perc predrummed
19 ahead of time. We'd keep four, maybe eight drums at a time
20 ahead, and that's about it.

21 Q "If perc leaked out of a drum in the pole barn, where
22 would it go?

23 A "Onto the gravel. It was just gravel and dirt, so it
24 would go into the ground.

25 Q "Have we labeled the pole barn that you're talking

1 about --

2 A "No.

3 Q "-- on our schematic there? Can you do that for me?

4 A "(Complied with request.)

5 Q "And can we label that pole barn number 12?

6 A "(Complied with request.)

7 Q "Do you have any way to estimate how much perc might have
8 spilled on the ground, through the kind of mechanism that you
9 just explained to me during the time you worked at Dyce, in
10 the pole barn?

11 A "Mechanism -- in the drums?

12 Q "In the drums in the pole barn.

13 A "How much product, total?

14 Q "If you don't know --

15 A "I'm going to say 20 gallons over -- because I, you know,
16 I did work in the, in the -- that was my area of
17 responsibility, you know. That's my work area for the most
18 part. So for the most part, I would be the one that either
19 would discover or somebody would say, 'Marvin, you've got a
20 drum that's leaking out there.' So either way or anyway, what
21 I recall it, it probably, over a period of the years I worked
22 there, maybe 20 gallons has leaked on the ground from leaking
23 drums.

24 Q "And would it be you more than anybody that would have
25 reason to know that if that was your primary area?

1 A "Yes, probably. Yes.

2 "Let me correct one thing on that. I'd have to actually
3 say Dave Warne, who worked inside as -- I think -- well, I
4 don't think. He was kind of the inside salesman, I guess. He
5 had a lot of the contact with the customers. He wasn't the
6 only one, but Dave seemed to work more with us guys in the
7 warehouse than other people in the office when it comes to
8 smaller things like drums and stuff.

9 "So periodically Dave would -- I could -- because when
10 I'm busy working, unless somebody addresses or asks me a
11 question or stops me, I might observe them, but I usually
12 didn't try to see what they were doing, you know.

13 "And a lot of times, I'd observe Dave coming out and
14 obviously going to the pole barn, checking stuff. And I'm
15 sure he was checking to see how many drums or something we
16 have, because he's got a call on something. So a lot of
17 times, Dave himself would come over to me and tell me when
18 he's discovered a drum that's leaking back there.

19 Q "Do you ever recall that happening with perc?

20 A "I can't testify who's told me what, I mean, in that
21 respect. I've been told, but --

22 Q "You don't recall if it was perc, *per se*?

23 A "Maybe and maybe not.

24 "No, I don't recall what he would tell me was leaking,
25 because, you know, we handled -- I handled so many drums, and

1 as a drum leaked, I, I corrected it."

2 Q "Okay. Other than leaky drums, what other ways did you
3 see xylene and toluene spilled?

4 A "Well, when I worked at the tank for them, I recall
5 specifically two different times when I was doing something,
6 loading or unloading a truck, trailer, or loading a customer's
7 truck, *et cetera*, where we had a problem with xylene and -- I
8 think it was xylene as opposed to toluene.

9 Q "Do you recall the specifics of that incident?

10 A "Yes, I recall both of them.

11 Q "Can you describe them for me?

12 A "Well, one time, I was loading a customer -- should I
13 tell you the name of the customer, or --

14 Q "Please.

15 A "-- just a customer?

16 "It was a company called Halliburton Services. I
17 believe, to my knowledge, they're more of an oil, what we used
18 to call an oil patch service company. Halliburton is probably
19 a well-known, large corporation all over the world.

20 "But, anyway, they have -- we did a lot of -- they did a
21 lot of work with Dyce as far as purchasing of merchandise. We
22 made deliveries to them. But this particular time, they had
23 their truck come up to us to get -- and there again, it was
24 either xylene or toluene, because with both those two
25 products, as far as me in the warehouse, when I handled them

1 two products, I considered them one and the same. Why do I
2 say that? Because it smelled very much alike. It weighed
3 alike. We -- and I went by weight. Everything went by
4 weight.

5 "So when I filled up a drum, it was so much per pound,
6 per gallon, and I remember that one. And Dave can correct me,
7 but I think it was 7.21 a pound. Xylene and toluene, I
8 believe, were both identical in weight, and it smelled alike.
9 It reacted alike. When I dropped any on the asphalt pavement,
10 it would start reacting to the asphalt, sort of dissolving it.
11 Maybe not instantly, but you could see a reaction happening.

12 "So with that in mind, we, we -- and I tried, tried to
13 not spill that. I won't say I -- well, I sort of tried even
14 more so on that product, because it was in my work area where
15 it would dissolve my area where I had to work. I mean, you
16 know, it ruined the asphalt, so -- plus, it was a, it was a
17 controlled condition. Xylene and toluene were both in Dyce
18 Chemical's two tanks, so we had direct plumbing from the tanks
19 to wherever, so we had less spillages just because it was
20 contained within a plumbing system.

21 "I didn't have to use flexible hoses. I still had to use
22 a rubber, flexible hose from the end of our rigid line to the
23 truck or trailer or whatever, but it was still a cleaner,
24 nicer deal because of that.

25 "But one time, this Halliburton and I was loading. It

1 was their equipment, and their equipment was, I'm going to
2 say, abby-normal, abnormal, because every truck that I've ever
3 handled during the years that I was there, they all kind of
4 worked the same as far as the opening and closing of their
5 valves, and maybe the fittings would be a different size, but
6 it was still kind of standard.

7 "Halliburton, they're more of a service-type company out
8 in the oil field, so their equipment was geared to work out
9 there. So their -- one of the things, their fitting, when
10 they came in, when I had to hook on, it's what they call a
11 spin hub. I might be saying the words wrong, but you'll get
12 the idea of what I'm trying to say. It was sort of a spin hub
13 coupling where you attach it and you lock it in. And I can
14 visualize out in the field, in the middle of nowhere, hooking
15 stuff up, and that's how they hooked them there.

16 "Well, our stuff was not made to accommodate and hook
17 there, so I couldn't just hook on like I did in every other
18 truck because it was, it was an odd type of a fitting on it.
19 We, at Dyce -- and my tank -- I mean, I had a -- my area, I
20 had various parts. I had nothing to accommodate to hook up so
21 I could fill it.

22 "And flammables, you didn't, what we call, free-fall over
23 the top because of the friction and the dangers of causing an
24 explosion or whatever. So you fed it from the bottom so that
25 when you were filling the trailer, it would be less friction,

1 because it went in from the bottom up. So that's how we
2 wanted to load this trailer. And we could have thrown the
3 hose in over the top, but we didn't do that because it's
4 dangerous.

5 "And so my foreman, who I -- you know, I don't recall
6 what his name was, because we did have turnovers of foremens.
7 But whoever it was, he took one of our fittings in to Dick
8 Colver, who was the -- well, one of his primary functions was
9 maintenance, and they, they unscrewed some fittings and put
10 things together and made a fitting so it would adapt from my
11 hose to that truck.

12 "When it was all said and done and we were all ready to
13 go -- there again, one of the primary problems I always did
14 have at Dyce, people wouldn't stick around to see if things --
15 whether it be a supervisor or a maintenance guy, they'd go.
16 They'd put things together, they'd assume they did it right,
17 and they'd walk away. 'There you go, Marvin.'

18 "Well, I'd hook -- I put it on, did the things I normally
19 did, and it all leaked all over the place instantly. And that
20 was even before I turned the water -- the pump pressure on.
21 That was just from gravity feed. Because we had, it seemed to
22 me, like an 8,000- or 10,000-gallon tank, and it was probably
23 quite high. So just gravity feed with no pressure, it just
24 spilled all over.

25 "Well, I quickly shut my valve off, but, you know, it was

1 already too late. It had already spilled all over.

2 Q "How much spilled?

3 A "Fifty gallons. Equal to a drum's worth, probably.

4 Q "Okay.

5 A "So we shut down, got the garden hose -- water hose out.

6 "Well, like I said, both the supervisor and the
7 maintenance person who had went and fixed this, I had no idea
8 where they were. They certainly weren't around to make sure
9 that everything was okay before they left, so I had to go find
10 them. I mean, I could have taken it -- you know, done, but I
11 didn't know where they got all the parts. I mean, it just
12 wasn't something that I had the responsibility, nor should I
13 have been dealing with, so I went and had to hunt them down.
14 Also, I had to find out what they wanted to do about all this
15 xylene all over.

16 "I mean, normally I'd take the water hose and spray it
17 off, because we're speaking of small pints at a time that I
18 would spill, but, you know, this was way more than a pint or a
19 quart or a gallon or a bucket's worth. This was quite
20 considerable. And the whole area was -- smelled bad. And if
21 I had a combustible-type car drive down that area, I would
22 have worried about an explosion.

23 "So I was in the panic mode when this happened, because
24 I'd never -- all the years I worked there, I've had various
25 kinds of spills, little and -- but I've never had this much

1 happen, especially with a flammable like that, and I was
2 extremely concerned.

3 "And I, you know, I panicked. I'll have to admit that.
4 I panicked. I mean, after I'd shut everything down where I'd
5 stopped any more further -- any leakage, but I didn't know
6 where the stupid yahoos are that I needed. And I went and ran
7 into the shop where Dick does most of his maintenance work,
8 and he wasn't in there. And I ran upstairs to the
9 supervisor's office, and he wasn't there. And from there, I
10 went into the office. And I don't recall who I talked to in
11 the office, whether it was Jim Diede or Dave Warne or -- well,
12 those were the two primary people that I mostly had contact
13 with.

14 "I don't recall who in the office came, but, anyway,
15 they -- I think we had a paging system, and they paged -- and
16 I think, if I recall right, I think they had a paging system
17 and they called for those guys. And they, finally, they got
18 down there and got the problem fixed.

19 "So I don't even -- I can't answer you what had happened,
20 why it -- what happened there. It was a fitting that I wasn't
21 even familiar with.

22 Q "What did they do with the xylene that had spilled?

23 A "I think we took bags of -- we put something on it to
24 help absorb it. And we had bags of sand. Oh, yeah. We, I
25 think we, we had a big forklift called Big Red, and I think we

1 had some kind of like a pallet where they threw dirt and sand
2 on it and kind of put it around and, you know, helped absorb
3 it up that way.

4 Q "Do you know what happened to that dirt and sand?

5 A "You know, I -- no, I don't. I'm sort of vague about
6 part of the cleaning-up portion because I was kind of caught
7 up in the middle of trying to get this customer loaded and
8 worried about the fitting leaking and worrying about the --
9 whether they got it fixed so I can continue the job I was
10 assigned to do, and I just don't remember the whole cleanup
11 process that much. I was somewhat involved with it, but yet
12 it's sort of foggy to me, so I can't really answer that.

13 Q "And that spill occurred on asphalt --

14 A "Yes.

15 Q "-- is that correct?

16 A "On black asphalt. Right near that ditch grate that I
17 was telling you about, so some of it went directly into that
18 ditch which went out into the catch pond. In fact, quite a
19 bit of it probably did, because where our pumps and tanks were
20 situated for xylene and toluene was real close to that pit.
21 So probably half of whatever I spilled wound up in the ditch,
22 which went out to the catch pond.

23 Q "Do you recall other incidents of spilling xylene or
24 toluene?

25 A "There was another time, and, there again, it was a

1 truck. And this time, I think it was a split hose, just
2 ordinary -- we rarely had them kind of problems, but this one
3 here was a hose that literally split while we were loading --
4 and I don't recall whether we were loading or we were
5 unloading.

6 Q "And a hose actually ruptured?

7 A "Well, yeah. I call it split. I feel more comfortable
8 with using the word 'split' rather than 'ruptured,' because
9 'split' indicates a line where, a hairline where maybe it has
10 a slight hairline leak, and then as the pressure builds, it
11 splits open, whereas a rupture, it literally ruptures. So
12 there's really a difference between a rupture and a split on a
13 hose.

14 Q "How much product leaked out as a result of that split?

15 A "Probably somewhere in the range of 20 to 50 gallons.

16 Q "And was that the same sort of situation as the previous
17 toluene/xylene spill you described? It was on asphalt?

18 A "Yes.

19 Q "Was that also near this grated ditch?

20 A "Yes.

21 Q "Did some of that product go into the ditch?

22 A "Yes.

23 Q "How much?

24 A "If I -- in my estimation, probably ten or 15 gallons.

25 Q "And do you recall how that particular spill was cleaned

1 up?

2 A "It wasn't as much, so, therefore, I believe we just used
3 our water hose and rinsed it off and tried to -- well, in
4 fact, I remember we took a push broom, and we sort of pushed
5 it into the ditch we had, which went down to the catch pond,
6 and a water hose and stuff.

7 "So, therefore, I have to back up on how much I feel got
8 spilled. It was quite a bit less than that other incident,
9 because it was, you know, it was enough where we were able to
10 handle it quite quickly and easily with the push broom and
11 water and got rid of it that way.

12 Q "So what's your best guess about the amount of product
13 that spilled?

14 A "Maybe 20 gallons."

15 Q "Let's talk about even larger spills. Did you ever see a
16 thousand-gallon spill?

17 A "Oh, yes. Yeah.

18 Q "Tell me about it.

19 A "Well, I'll start with the products that come to my mind
20 first.

21 "We had a railcar of hydrochloric acid parked like your
22 graph shows here. In fact, I think that's probably a
23 hydrochloric acid car sitting there. We had two fiberglass, I
24 think they were 16,000 gallon, tanks, each one. They were
25 twins.

1 "To unload this hydrochloric acid, we had a metal tower
2 you climbed up, you know, 10 or 15 feet on the ladder, and
3 then a metal platform, and then you pulled a chain, and it
4 flopped the stairs, steps or whatever, out onto the top of the
5 railcar where you had to stand -- you had to undo this flange.
6 It was a rubber flange.

7 "So you'd take that off so you could put -- we had a
8 3-inch hose with a flange. A flange is just a fitting. And
9 you'd put it over the top of their, top of their railcar, and
10 then you bolted it down, and you put it -- put the other end
11 onto our 3-inch line that went to our, our hydrochloric acid
12 tanks. And you closed the ears on it, which is -- even though
13 it was a bigger size and it was -- in some ways, these things
14 are all kind of the same, and this was, was real similar to my
15 other hoses in that it had a rubber gasket on the inside, and
16 it had two little ears that, after you connected it, you
17 pulled these ears down, and it tightened up.

18 "So after I got everything all hooked up -- you never
19 gravity-feed a hydrochloric acid railcar because the way it's
20 designed, you come from the top, so the only way to empty that
21 railcar into your tank is with pressure. In this case, we
22 didn't use a pump. We used air pressure. So we had an
23 air-fitting hose, and everything's on top of this railcar.
24 After I hooked it up, it would probably take me 45 minutes of
25 working with all this stuff to get it ready to go. And after

1 I had the air hose hooked up and the product line hose hooked
2 up -- there was no valve to open or shut on the railcar.
3 There was a valve on our, on Dyce's hose, right up here at the
4 top of the tower, but the railcar, it had -- I didn't analyze
5 the railcar, but I know how they're built, and this one had
6 kind of a stem pipe that goes from the top of the railcar all
7 the way to the very bottom of the railcar, and then down at
8 the bottom there's a sump. So the water comes in there at the
9 bottom, and, just like drinking pop out of a straw, you sucked
10 it up, and it went into the car. So you push the air pressure
11 on, and after approximately ten minutes of pumping air into
12 this railcar, there was a lot of air pressure that would start
13 forcing the product out the hose and into our tanks.

14 "Well, after, after the product actually started flowing,
15 I would -- I worked in the general area, and I would always go
16 and check my railcar. Because it is under pressure, and like
17 anything else -- anytime I was unloading, I would periodically
18 go check myself just in case there was any kind of a problem.
19 You'd know. The sooner you find the problem and shut down,
20 the less spillage, of course.

21 "This particular railcar hadn't indicated any problem
22 with it for -- I was probably -- oh, it usually took about
23 five hours of actual running time to unload a railcar from
24 start to finish.

25 "This car, I'd unloaded approximately, oh, 45 minutes,

1 maybe an hour at the most. And I noticed -- and, you know,
2 you've all seen railcars. I noticed a kind of a, what we
3 call, a pinhole leak. And literally it was just a little
4 stream of acid flowing out of the, oh, approximately about,
5 right about halfway on the belly of the side of the railcar, a
6 stream shooting out of it of hydrochloric acid.

7 "And I could see it for a number of reasons. You could
8 see it, first of all. You could smell it, second of all.
9 Third of all, as it hit the ground, there was steam coming up
10 because of, you know, the water and moisture there, and there
11 was steam coming up.

12 "Well, I'd never seen that in my life happen, but I knew
13 there was a problem there. So right away I did exactly what
14 I -- that I knew I could do for it. I quickly ran over and
15 shut the air pressure off.

16 "Secondly, I grabbed the air hose fitting, and they go
17 in -- they just go in with a twist. I grabbed it, and I
18 untwisted it to help even further to relieve the pressure in
19 the railcar. I did not shut my valve off. I wanted to -- if
20 I'd shut the valve, then that would have kept more of the
21 pressure in the railcar. So I kept my valve open, because my
22 tanks were empty, so that would help relieve the pressure.
23 And I'm talking about all within a matter of minutes,
24 everything I'm describing, happened.

25 "After I got done what I knew I could do about it, which

1 wasn't too much because it was under pressure, I, I don't know
2 that I ran inside, got help, or -- I think I -- that
3 particular time, nobody was -- Dick wasn't down in the shop,
4 and this is right next to the shop where Dick normally would
5 be. He wasn't in there, so I didn't spend time. I ran
6 inside.

7 "And it seemed to me like that person was Jim Diede, who
8 I -- was the first person that I was able to report and tell
9 him we had this problem out there. So he came out with me and
10 looked and observed that, yeah, we do have a leaking railcar.
11 He didn't know what else we could do. I didn't know what else
12 we could do. My foreman, by now, he got involved. We found
13 him or whatever. I don't even recall.

14 "But he -- you know, there was really nothing we could do
15 about it because it was under pressure. We couldn't open the
16 top of the car. I put a hydro- -- I shouldn't say a
17 hydrochloric mask, but I put a mask on to stop the breathing,
18 because this is dangerous fumes. I unscrewed some of the
19 bolts on the top of the thing, but you couldn't do that until
20 most of the pressure is off, because if you do very much of
21 it, you know, that acid wants to come out wherever there's an
22 outlet. So my thinking was, you know, I was trying to relieve
23 some of the pressure, but it was too soon, so that's exactly
24 what happened. Some of the -- I mean, I could seek it
25 bubbling out. It wanted to come out, so I knew that was the

1 wrong -- it wasn't ready to do that yet. So I screwed the
2 nuts back down, and basically that's all we could do.

3 "And by the time we got done with that railcar, from a
4 pinhole leak, it literally blew out -- I won't say blew out
5 the whole side of the railcar, but it blew off enough of it --
6 and this railcar, besides steel, this particular product has,
7 oh, geez, 1 or 1 1/2-inch lining on the inside of the railcar.
8 You could see all this stuff just kind of -- like it melted or
9 it just got all -- the whole railcar siding got all ugly, you
10 know. It was coming apart, busting at the seam and stuff.
11 And by the time we got all done, we must have had, oh, kind of
12 a -- if you could call it a hole, we must have had a 2- or
13 3-inch hole on the side of that railcar. Part of it was
14 following the seam, so the seam and stuff sort of all came
15 apart, along with the rubber lining kind of came apart, and
16 then the hydrochloric acid just gushed out then.

17 Q "How much product spilled?

18 A "Well, that railcar came in to us full, and I unloaded an
19 hour's out of five hours' worth into my fiberglass tank, so, I
20 wouldn't be surprised, I wouldn't be surprised, 15,000
21 gallons. If I recall the hydrochloric acid tank, I, I think
22 they were 30,000-gallon tanks, and I'd say at least half of
23 it, roughly approximately 15,000 gallons of hydrochloric acid,
24 all on the ground and by the catch pond. A lot of it went
25 down in the catch pond. Some of it went on the other side of

1 the rail track, which is an open pasture, ground, and all over
2 the area. I mean, that much of a spill, and you can imagine
3 it's going to trickle and go wherever nature -- you know, the
4 natural grading of a terrain of the land.

5 Q "Do you remember when that spill occurred, what year,
6 approximately?

7 A "Oh, the year?

8 Q "Or how long after you began working there?

9 A "Oh, boy. I'm going to say probably three years or so
10 after I'd started working there, if I remember right,
11 approximately.

12 Q "Did you ever witness any other major spills?

13 A "We had a -- now there again, I've been talking about
14 railcars for a while. On this same -- on your diagram here
15 where the railcar comes in, they come in here, and down at the
16 end they had kind of a pyramid A-frame thing with a -- built
17 with railroad ties and brace things, so if a runaway railcar
18 ever did run away, that's what it's built for, is to stop the
19 railcar. We had one of those on the end.

20 "And this was, this grading from, from our -- or from the
21 main line, railroad line, down into our tank farm -- I'm not a
22 railroad expert, so I'm not -- but, I mean, it was -- I mean,
23 it wasn't just my view. I mean, over a period of years, we
24 all, including railroad people -- how steep this was going up,
25 a pretty steep grade as opposed to being pretty level, or

1 maybe you want a little bit of a grade. That was pretty,
2 pretty steep going down here.

3 "Many times I observed brakemen that were bringing the
4 railcar, and, boy, they were spinning that wheel like crazy to
5 slow that fully loaded railcar of whatever. The weight of it,
6 the volume would keep pushing it down. And they, you know,
7 they, they had a pretty steep slope there to stop the cars.
8 But, anyhow, it got stopped.

9 "But this particular railcar of -- you know, there was a
10 railcar that went off the end of the track. I'm not going to
11 say the name of the product because I don't recall what it
12 was. I don't know if it was perc or hydrochloric acid. I
13 think it was one of them two. Maybe it was something else. I
14 don't recall.

15 "But either way, what had happened, the way the brakeman
16 told me later on, where a railcar coupling, they usually stay
17 open, it had been closed and the engineer bumped it by, I
18 think probably by -- I didn't witness this. I'm getting this
19 secondhand. But he bumped the car, and it went down a lot
20 faster than it was supposed to do. And the brakeman has that
21 big wheel that they turn, you know, for the brakes. He had it
22 cranked all the way down, and it wasn't slowing it down.

23 He jumped off, and the railcar went down to the very end
24 where that stopper is, and after it hit it, it just sank down
25 into the ground and then tipped over on its side, and then,

1 and then the product was spilled."

2 Q "What was the liner in the catch pond like at that point?

3 A "The lining, since day one that I started working there,
4 was never in good shape. That whole pond area wasn't -- it
5 was something that was just totally left alone, like so many
6 other things. That pond was just there. They never did any
7 maintenance or anything on it. They just used it, like they
8 did their tools, their parts, their forklifts, their valves.
9 Everything. You know, they just used it, used it, used it,
10 used it, used it. Never did any, what, you know, the old
11 word, preventative maintenance. They never replaced
12 something. The only time things would get replaced was when
13 it was busted to the point where they -- we had to throw it
14 away and start again. Otherwise, they just kept repairing
15 stuff."

16 Q "Let's talk a little bit about inventory and
17 recordkeeping at Dyce. When you worked at Dyce Chemical, how
18 did the company keep track of how much product it had, how
19 much inventory it had?"

20 COUNSEL FOR DYCE CHEMICAL: "Objection. Lack of
21 foundation."

22 THE COURT: Let's stop it for a minute.

23 Quick recess.

24 THE LAW CLERK: All rise.

25 (Recess taken from 10:53:26 to 11:02:30.)

1 (Open court.)

2 (Jury present.)

3 THE COURT: Please be seated.

4 Please continue.

5 Q (By counsel for Weiss plaintiffs) "Mr. Johnson, was it
6 your job to keep track of the inventory in the tank farm of
7 liquid chemicals at Dyce?

8 A "Well, I'll answer that, but I want to clarify something.
9 When you say 'keep track of,' I might keep track of it in a
10 momentary basis for like about an hour or two.

11 "Dave Warne, for instance -- I'll use Dave as an example
12 because he was on the sales desk. He talked most directly
13 with the customers. I believe that's the way it happened. He
14 would get an order for something. Dave Warne, since I worked
15 in the tank farm, he would maybe come out and ask me how
16 much -- I'm using -- it's easiest for me. I'll use the word
17 'methanol.' It can be ethylene glycol. It can be numerous
18 products.

19 "He would ask me what the level was. 'How much have we
20 got?' So I'd climb up. I'd open the sight gauge if it was a
21 tank that had a sight gauge.

22 Q "Tell me what a sight gauge is.

23 A "All right. You take a column of a tank, and on the side
24 of it, we have usually clear tubing, plastic tubing, because
25 these are products that wouldn't dissolve plastic. We'd open

1 a valve at the bottom, and the sight gauge runs all up and
2 down the entire tank. And the liquid will -- when you open
3 the valve, the liquid will seek its own level, and it will go
4 to wherever the level of the tank is. Then you know where
5 your product is.

6 "It's an easier way of finding out where your product is
7 as opposed to climbing clear up to the top of the tank and
8 dropping a big, long measuring device clear to the bottom,
9 which has -- just like a tape measure, and it will tell you.
10 It's just a much easier and probably just as efficient way as
11 the old -- I call it the old-fashioned -- the much more
12 dangerous way of climbing clear to the top of the tank.

13 "So you'd open the valve, find out where the level is,
14 take a -- I'd take a tape measure. Start at the bottom or the
15 top. It don't matter. You'll come up with the same answer.
16 Say you got 92 inches of product in the tank. Then you go to
17 a chart for that particular tank, and it will tell you how
18 many -- an inch equals 15 gallons. So you multiply out how
19 many inches of product you have, and then you know how many
20 gallons you got. So that was, that was primarily in the
21 bulk -- that's where I was involved in the inventory.

22 "The recordkeeping, I'd give that information to Dave
23 Warne or Jim Diede or whoever requested it, or my -- or even
24 my foreman sometimes would ask me. I'd give them the
25 information. Then I was done with the recordkeeping. You

1 know, I didn't have a notebook or a place I recorded that
2 information. I gave it to people like Jim Diede and Dave
3 Warne. Same with the, same with the drums out there. I
4 wouldn't be concerned how many I've got unless they
5 specifically asked me.

6 "I'd be concerned in one respect. I had to keep track
7 and babysit those products, because I knew how much we -- I
8 had a pretty good feel of how much we sold on a daily or
9 weekly basis, and it was my responsibility to keep that
10 product stocked up and ready to go. So whenever I had free
11 time, I drummed up stuff. But then recordkeeping was really
12 done by Dave and people like that on the inside of the office.

13 Q "Did you have, during the time that you worked at Dyce,
14 any reason to know how accurate the recordkeeping was that
15 took place in the office?

16 A "Well, I'd have knowledge and know-how just from common
17 sense of them coming out and never knowing what we've got in
18 stock.

19 Q "So that happened?

20 A "All the time.

21 Q "Tell me about how that occurred.

22 A "One day -- I have two twin tanks with identical -- you
23 know, of a product. And, you know, we knew precisely how much
24 was in there because of the sight gauge, and we'd measure it.
25 And Dave Warne would ask me, 'How much you got of this

1 particular product, ethylene glycol?' I'd tell him. We had
2 no movement. Didn't sell no drums, didn't sell no bulk loads
3 or anything.

4 "The next day, he'd have a truckload. Maybe a customer
5 wants 8,000 gallons. He'd come out and reask me again and
6 have me remeasure the tank. After doing that 20 or 30 times,
7 I'd say, 'Okay,' he'd leave, and sometimes I wouldn't even
8 bother to measure because I'm the one that handled that stuff.
9 I wouldn't even measure. I know where the level was. But for
10 some reason -- and I don't know. I didn't work inside the
11 office. I don't know why their records -- why they couldn't
12 figure out what they had."

13 Q "Okay. Let's talk about the perc tank for a moment. Was
14 part of your job to periodically measure the volume of perc in
15 the perc tank?

16 A "Yes.

17 Q "And how did you do that?

18 A "It had a big spin -- kind of a lug or a -- a big cap on
19 it and big wingnuts. And you'd open it like this
20 (indicating). Go up on the top of it and drop -- measure it
21 down with a measuring -- a wheel, which had -- which was just
22 like a tape measure. It had a plumb thing, or weights, so it
23 would go down in the liquid, and you'd measure it and see
24 where the level was, you know.

25 "And this was a fairly small tank. It was about 4,000

1 gallons, I believe, and it was laying on its side as opposed
2 to up and down. So it was a long tank, probably, probably 15-
3 or 20-foot long by about 6-foot tall.

4 "So I'd measure periodically. I didn't have a routine
5 when I measured it. I usually just measured them when the
6 office -- Dave Warne or anybody else in the office would
7 request a measurement. I mean, I had no reason to measure it
8 unless, unless I was curious, or -- and periodically I would
9 voluntarily do these things, you know, just because I was -- I
10 did care about our company, and, you know, they succeed, I
11 succeed.

12 "So if I suspected I'm low on a product, even though
13 somebody didn't ask me, I'd measure it. And if my thoughts
14 was correct, which, most of the time they were -- because I
15 knew my job, I knew my products -- I'd go in and point it out
16 to Dave or Jim or whoever if we're low.

17 "And sometimes he'd say, 'Yeah, I knew that,' or, 'Yeah,
18 thanks for the heads-up,' or, or maybe they didn't know it,
19 you know. But I would make them aware of it anyway. And it
20 wasn't no big deal either way. I mean, they appreciated it,
21 I'm sure. And sometimes they didn't -- it was knowledge they
22 didn't need to know."

23 Q "Do you recall any concern at Dyce over discrepancies in
24 what the company thought was in that tank and what was
25 actually in the tank?

1 A "Yes. Perc was -- seemed to be one that was
2 constantly -- they were, they were constantly surprised with
3 the lack of product we have.

4 Q "And what do you mean by that? Who was surprised, and
5 how did you know they were surprised?

6 A "Well, what the response, both -- well, I think -- the
7 way I remember it is mostly Dave Warne, because he again
8 generated most of the invoices and stuff when he sold to
9 drycleaners, and drycleaners is the one that I recall. Most
10 of the time they're the ones that used this stuff, and for
11 some reason we just never seemed to have enough perc, I mean,
12 compared to what we should have, because it was a limited
13 sales item. We didn't keep a lot of drums ahead of time. We
14 didn't make a lot of deliveries of bulk ahead of time. So
15 once we'd get the product in, it would pretty be right there,
16 you know. We didn't have a lot of fast turnover all the time
17 on it, and yet for some reason we never seemed to ever have --
18 they couldn't account for all of it for some reason, you know.
19 Either they lost invoices or didn't keep track of it right in
20 the first place or, what, I couldn't tell you that because I
21 didn't work with the record part of it. But for some reason
22 they were always surprised with the product we didn't have.

23 Q "And how did you know that they were surprised?

24 A "Because they'd come out, and sometimes they'd have me
25 measure again. I'd tell them how much we've got. 'That can't

1 be right, Marv. Go measure it again,' you know.

2 Q "How often do you think that happened?

3 A "Oh, a fourth of the time that I would have to measure
4 it.

5 Q "One out of 4 times when you measured that tank, they
6 said that you must have made a mistake, 'Measure it again'?

7 A "Yes, yes.

8 Q "Over the whole time that you were there or just a
9 portion of the time that you worked at Dyce?

10 A "Oh, out of the -- probably six out of the eight years.
11 They eventually -- they didn't get rid of that tank. They
12 eventually -- we drained it. You know, when I say 'drained
13 it,' we didn't drain it on the ground. We drained it into
14 drums and skids and did whatever we could to get rid of it.
15 Purposely let it go down by selling rather than replacing it.

16 "When it got empty, they had a crane company come in, and
17 they disconnected everything and literally put it on a flatbed
18 trailer and drove it away and had a special lining put on the
19 inside of the tank.

20 "I remember, because it -- although I wasn't involved in
21 the decision-making or anything, I still handled it when it
22 came back. And it was kind of a yellowish -- a real pretty
23 yellowish lining that went in on the inside.

24 "Now I don't know what the purpose of the lining was,
25 because the tank was a steel tank. And to my knowledge, all

1 the years I worked there, I never seen any leakage either --
2 although this was on the gravel or on the ground -- I mean, I
3 never seen any leakage all the years that I handled it. But
4 they suspected a leakage for some reason.

5 "They know more than I do about some stuff, and maybe
6 they -- you know, maybe it came out of the tank some
7 mysterious way or something. But, anyway, they went and got
8 it lined, and I don't know if that was to help prevent leakage
9 or evaporation. I think I had heard something about they
10 thought maybe evaporation was taking place, you know. Because
11 it was a sealed tank.

12 "As far as I knew, it was sealed. Because when -- that
13 spin nut that I pulled out, it had a gasket on it, and I
14 periodically had to watch that gasket, and if it started
15 getting warm from being opened and closed so much -- because
16 whenever I filled it, we had it open, and we would replace
17 that top gasket. But whenever we closed it, to my knowledge,
18 it was still pretty well sealed up.

19 "It might have had, oh, what we call a vent, a release
20 pressure vent thing that, I guess, was made to stop pressure
21 and venting. But overall that tank was a -- pretty much a
22 self-sealed thing.

23 "I personally didn't buy into the fact that it was
24 leaking because I couldn't see or smell. Perc is an extremely
25 strong-smelling product, and if you, you spill it on the

1 ground, especially if you've got dirt, which, the tank was
2 sitting on dirt and gravel, that perc smell is like diesel
3 fuel. It would have stayed there. And I, I never bought into
4 that business of being -- leaking.

5 Q "The ground beneath that tank was --

6 A "Gravel and dirt.

7 Q "-- not asphalt. It was dirt and gravel?

8 A "(Nodded head affirmatively.)

9 Q "Do you recall any further problems with discrepancies in
10 the amount of perc in that tank after that lining was
11 installed?

12 A "Well, after we got that tank back and everything put
13 back together, it was basically the same tank as before, only
14 maybe they pressure-tested it before they put the lining in.
15 And then after that, no, I think the conversation -- I
16 personally feel they just started doing a little better job of
17 recordkeeping, is what I think happened.

18 Q "Can you indicate on the map for me where that perc tank
19 was?

20 A "Yes. It was right over in the work area where . . .

21 Q "And you're indicating on Exhibit 1 here.

22 A "It was over here near where my -- well, about halfway
23 between the shop, which is number 1 and -- what's number 7?

24 Q "The semi loading and unloading area.

25 A "Oh, yeah, that's right. It was in between number 1 and

1 number 7, right down here where my drumming shed was, which we
2 don't have identified, but that would be right in here. So it
3 would be right about -- the camera can't pick this up, but it
4 would be right in this area here. It would be here. It would
5 be real near that number 11, the ditch. It would be near
6 that. Right in here.

7 Q "Can you make an X and mark a number 14 next to the area
8 that you're describing?

9 A "(Complied with request.)"

10 Q "And go ahead and write 14 next to that X.

11 A "Oh, right on the thing itself?

12 Q "Yeah.

13 A "(Complied with request.)"

14 Q "Okay. I'm going to hand you a document that is labeled
15 'Dyce Chemical' in the upper left-hand corner, and it has a
16 Bates stamp in the upper right-hand corner of 000553. Can you
17 tell me what that document is?

18 A "Do you want me to read all this and then to answer you
19 that, or just --

20 Q "Just look at it enough that you know what it is.

21 A "Yeah. It's, like it says at the very top, it says
22 'Warehouse Quarterly Breakfast Meeting, Thursday, May 1,
23 1986.' It's probably a brief note of what was transcribed on
24 that meeting that day. It's not signed by anybody, but --

25 Q "Does your name appear in the first paragraph?

1 A "Can I read it out loud or just read it to myself?

2 Q "Sure.

3 A "'The quarterly warehouse breakfast meeting was held at
4 6:30 a.m. on Thursday, May 1, 1986, at O'Hara's Restaurant.
5 Those attending the meeting were Jim Diede, Steve Dyce, Monte
6 Naff, Gary Cornwell, Dick Colver, Marvin Johnson, Frank
7 Hartman' -- yes, my name is on there. I attended that
8 meeting."

9 Q "Can we mark this document Exhibit 2?"

10 "Can you read the second highlighted portion for the
11 record?

12 A "Okay. Out loud or to myself?

13 Q "Out loud, please.

14 A "The second highlighted portion says, 'The lack of
15 adequate personnel in the warehouse was a topic discussed by
16 Marvin. He noted that oftentimes two people had been doing
17 the job of a four-man crew.'

18 Q "Do you recall that discussion?

19 A "Yes.

20 Q "Do you recall any, any changes in Dyce policy regarding
21 the number of people that were in the warehouse following your
22 recommendations?

23 A "No.

24 Q "Can you read the highlighted portion in paragraph 2 for
25 the record?

1 A "'Frank added that the warehouse was not the only area
2 that needed to be cleaned and maintained more carefully.'

3 Q "Do you recall problems with maintaining the warehouse,
4 keeping it clean?

5 A "Yes.

6 Q "What were those?

7 A "Oh, the warehouse, which is primarily the upper
8 warehouse where all of our drygood material was, since both
9 the north and the south side of the warehouse, or the right
10 and the left, or however you want to say it, was full of
11 various kind of bags, of pallets, maybe two or three products
12 would be in one row, and if a customer wanted the back one,
13 you'd have to take your forklift, drag the back -- you know,
14 the, the pallet full of bags out to get to what you were
15 after.

16 "Well, each time you handled bags that are on a pallet,
17 the more times you handled it, the more susceptible you are to
18 tearing it, because things are so tight -- I mean, if you had
19 a warehouse that was real big where the aisles were -- with
20 space, you wouldn't. But we had things so cramped in there,
21 you might have a little gap of 2 or 4 inches between each
22 stack.

23 "Well, your wooden pallet, if it -- as you're backing
24 out, if you go a little crooked, or a bag is hanging over a
25 little more than it should, or whatever reason, if you hook

1 it -- it doesn't take much to hook a bag, and then it got
2 tore. So constantly, throughout the whole warehouse, we were
3 always having products that got spilled. And we'd take tape
4 and tape it, but tape just didn't stick on a dirty, dusty bag
5 very well."

6 Q "I'm going to hand you a document that also says 'Dyce
7 Chemical' in the upper left-hand corner, and in the upper
8 right-hand corner it has a Bates stamp 000572. Can you read
9 for me the second highlighted portion?

10 A "Okay. The second highlighted portion, basically where
11 it's highlighted, says, 'Customers do not receive the wrong
12 products.'

13 Q "Do you want to read that whole paragraph for the record?

14 A "'Also discussed during the meeting was the proper
15 labeling of drums. Deliveries need to be watched more
16 carefully to ensure that customers do not receive the wrong
17 products.'

18 Q "Do you recall, in your time at Dyce, any problems with
19 customers receiving the wrong products?

20 A "Only after they implemented the idea of not using the
21 spray adhesive and just putting labels directly over or onto
22 another -- onto a drum without using the spray adhesive glue
23 first, because then labels would come off. And if you take a
24 black, shiny drum and the label off, then you have no way of
25 identifying it.

1 Q "Would that have created inventory problems at Dyce?

2 A "Very much so.

3 Q "Can you read the second highlighted portion on that
4 document?

5 A "The second one is the one I just read. 'Customers do
6 not' --

7 Q "I'm sorry. The third one, then.

8 A "The third one says, 'Monte share some thoughts and
9 discussions about the tank farm retaining pond area.

10 Q "Now let's go back for a moment. Were you present at
11 this safety meeting, do you recall?

12 A "Yes, because it's got my name in it, on there, that I
13 attended.

14 Q "Do you recall that discussion regarding the retaining
15 pond area?

16 A "Let me read this for a minute, will you?

17 "Well, yes, I recall that, but --

18 Q "Do you recall what the comments were about, or --

19 A "They discussed how -- you know, that they have a pond
20 and that they have a problem, and it's an old pond, and
21 sometimes that pipe that was installed in there wouldn't
22 always drain.

23 Q "Now I want to make sure that this is what you recall
24 from the discussion that morning.

25 A "Right.

1 Q "This is what they were talking about at the time?

2 A "Yes. Yes. But nothing was really -- I mean, it was
3 talked about, but nothing was ever really resolved."

4 Q "Did you have any kind of protocols for avoiding minor
5 spills in advance, like using drip pans, or did people tell
6 you about that?

7 A "Very much so. That part of it, they were very -- you
8 know, catch everything. Buckets, you know. They were
9 anticipating small quantities being spilled. And not even
10 spilled. That's not even a good word. Somehow being dripped
11 or off of hoses. We very much were hammered to use buckets.
12 And, you know, if you've got a conscience at all, you'd want
13 to just by being a good worker and caring for your
14 environment. So we just naturally -- I really feel that, with
15 one exception, I really feel, for the most part, we all tried
16 to do our best to try to catch it and not let anything get on
17 the ground if at all possible."

18 Q "What did Dyce do to make you aware of the dangers of
19 perc for the environment?

20 A "Very little was ever discussed about that.

21 Q "Did you ever see what's called a material data safety
22 sheet?

23 A "Yes, commonly known -- I'm very familiar with that. We
24 commonly call it MSDS sheets. Yeah, we discussed that at our
25 safety meetings. We had MSDS books and sheets around for the

1 various products. The labels themselves had brief warnings,
2 labels, *et cetera*, on the various chemicals, including perc,
3 trichloroethylene, all of the various things that we handled.

4 Q "Did Dyce management ever provide you with anything, any
5 documents informing you about the dangers of perc that they
6 gave you personally?

7 A "You mean for us to keep for our own -- for my own
8 records?

9 Q "Or for you to review?

10 A "Oh, to review? No. No, they didn't give me anything
11 like that, no. I mean, we had access to it in the MSDS book,
12 which broke down the chemical completely as an MSDS sheet, and
13 I, I wasn't inclined -- I mean, I never requested a copy, so I
14 can't totally say Dyce was negligent in that. You know, I
15 just -- I didn't request it, and they didn't volunteer it, you
16 know. It was a mutual deal. We discussed it somewhat. I
17 read the label, and I knew what I was handling, but what --
18 I'll tell you right now, and that's why emotionally, earlier I
19 got so emotional on that xylene.

20 "I didn't really -- I didn't know, when I was -- when
21 things were getting spilled, I didn't really know the dangers
22 and what all it contained. I mean, we all -- you know, I'm
23 not a naive little second-grader. I know that chemicals, if
24 you spill chemicals on the ground, it's not good for the
25 ground. But I didn't really realize the ramification or the

1 amount that it could ultimately do where I'm standing in front
2 of a camera explaining it today.

3 "I didn't know, and it was never discussed in our safety
4 meetings or just casual over coffee or -- we even had what
5 they called business meetings once in a while. And even
6 though they didn't include us or me very often in the business
7 meetings, once in a while, they did. But it was never
8 discussed about what would happen when you'd drop a bucket or
9 a gallon or a pint or a quart or a thousand gallons on the
10 ground. It was never discussed as common knowledge.

11 "They might have discussed amongst themselves in the
12 office, but the people like myself who was handling it, to my
13 knowledge, I don't ever recall them telling me what happens if
14 I spill 50 gallons of perc on the ground and it goes to that
15 pond. It was never point blank told to me, 'Marvin, that can
16 really contaminate the groundwater all around.' I mean, that
17 was absolutely not an issue at all and was never discussed."

18 Q (By counsel for Dyce Chemical) "You mentioned trucking
19 companies which would bring product to Dyce Chemical. Can you
20 describe which companies would bring products to Dyce
21 Chemical, either by name or by some characterization which
22 would help the jury to understand which trucks brought
23 products to Dyce Chemical?

24 A "Well, there was one company, and they're in Newcastle,
25 Wyoming, and I think they were just called Johnson Truck

1 Lines. They were black in color; the cabs were black in
2 color, and they were in Newcastle, Wyoming. And quite often
3 they'd go down to primarily the Union Carbide factory in Texas
4 and bring up chemicals to us. But there was others, but that
5 was the primary source.

6 "Another trucking company would be -- oh, what was their
7 name? Oh, boy.

8 "Sorry. That's the only name I can remember other than
9 Jim Charlton Trucking, which was really kind of part of our
10 company. In fact, he even had the Dyce logo right on his
11 door.

12 Q "When those trucks typically brought products to Dyce
13 Chemical, did the driver or any other person associated with
14 the trucking company have any duties with regard to transfer
15 of the product to Dyce Chemical?

16 A "They somewhat assisted me, because it was their truck,
17 it was their trailer, it was their equipment. They wouldn't
18 just pull down and say, 'Here's the product,' and walk away,
19 because I wouldn't let them do that. I wanted them right
20 there while I was hooking up, just to make sure I knew how to
21 properly open their valves or close their valves, because I
22 needed that knowledge in case there was a problem and they
23 weren't around.

24 "A lot of times, once we got product going, it was my
25 responsibility to unload, and they were gone. So I would make

1 them stay there. And they would willingly do it. It
2 wasn't -- you know, until I understood their mechanisms and
3 where the products were -- because I, I had to have
4 communication with these drivers, because when I got him
5 unloaded, especially if it was three products, each time, I'd
6 have to have them weighed.

7 Q "So were the truckers, were they involved in the process,
8 then, of transferring the product from the truck to Dyce
9 Chemical tanks?

10 A "Not really, no. I was unloading it."

11 Q "Referring to the catch pond that you described, I think
12 you said there was a dike around it or a wall? Is that the
13 case?

14 A "A dike. That's the way I described it.

15 Q "And would that have been a wall above ground?

16 A "Yes, about 4 or 5 feet above, you know, built all the
17 way around.

18 Q "And it was concrete?

19 A "No.

20 Q "It was not. What was that made of?

21 A "Just made out of dirt and gravel.

22 Q "And then there was a liner which you could see along
23 that dike, then; is that --

24 A "Yeah, a very deteriorated liner.

25 Q "Do you know when that had been placed there?

1 A "It was there long before I started working.

2 Q "You never saw the bottom of the catch pond, then?

3 A "No, I didn't, because it always had product -- I mean,
4 not product. It always had liquid of some sort in it."

5 Q "And was that primarily due to rainfall?

6 A "That would be the primary push of why -- because it was
7 raised so high that if we did -- you know, if they didn't do
8 something, it was going to go over the top. So that's why
9 they'd drain it or ask us to drain it.

10 Q "And you mentioned that when it was drained, it was
11 drained into, I believe you said, a pasture?

12 A "Yes. There was -- all the way around our entire
13 premises was pasture. Dyce Chemical, there was pasture all
14 the way surrounding the entire property, other than the front
15 end, which faced south, and that was where the street was and
16 then the railroad tracks.

17 Q "And did that event occur throughout the time you were
18 employed at Dyce Chemical?

19 A "What? Draining the pond?

20 Q "Yes.

21 A "Yeah. Yes, it happened periodically throughout my
22 employment.

23 Q "Did you ever have any concern about that being done?

24 A "Yes.

25 Q "Did you ever talk to anyone about that?

1 A "Yes.

2 Q "With whom did you speak?

3 A "John -- or not John. Mark Carpenter, who was my
4 foreman. Rob, Rob and I, who I -- he was the one you asked
5 about. He was quite concerned about health, safety, the
6 environment. We talked about that, because we didn't feel it
7 was a good situation down there.

8 "Quentin Dyce, who periodically would come out and see
9 us. Quentin was a very good, he was a very good,
10 straightforward man. And he'd come out and talk to us. Even
11 though he was the founder of the company, he'd come out, and
12 he'd treat us like people.

13 "And he'd come out and ask. I mean, and you could ask
14 Quentin Dyce about the pond, or if you had concerns on a
15 one-to-one basis. It wouldn't be unofficial, and it wouldn't
16 be held against you."

17 Q "Okay. The ditches -- and maybe give me the numbers on
18 those again. The two ditches --

19 A "Yeah, they're -- the two ditches was No. 11.

20 Q "That's the --

21 A "That was the closest --

22 Q "-- eastern ditch, right?

23 A "The west. That was the west ditch.

24 Q "Oh, I'm sorry. Yes.

25 A "And No. 10, which is the east ditch.

1 Q "Okay. And I believe you said -- now was 11, is that
2 entirely concrete-lined, if you know?

3 A "No. It was, it was concrete for just, I'm going to say,
4 like 2 or 3 feet, just around the immediate area where we had
5 water and hose. But then it opened out. It might have been
6 concrete where the tanks were. I, I don't completely recall,
7 but -- maybe it was half and half. Maybe part of it was
8 concrete. But at certain -- at some point, at least the last
9 half, I know, was just a dirt, gravel, mixed ditch, you know.
10 So with water and whatever I washed down there, some of it
11 could have seeped down into the ground from there, yes.

12 Q "And what about 10? That would be the --

13 A "That would have been the same. That was the same -- let
14 me think about that. That might even have been built later.

15 "It was concrete at this end -- all right. Where the
16 trucks pulled in and out, we had a grate, and that was
17 concrete right there where the trucks were at and where we
18 would wash and hose things off. And that was concrete there.

19 "And I think at some point it switched from being
20 concrete to just dirt and gravel again and opened on down to
21 the catch pond.

22 Q "You mentioned that -- I'm sorry.

23 A "Maybe half of it was concrete, and then once it got away
24 from the structural stuff, then it became just dirt and
25 gravel."

1 Q "How often would perc be delivered to Dyce Chemical while
2 you worked there?

3 A "Oh, every three or four months we'd get in some sort of
4 a shipment. Once we had a -- if we had a full 4,000-gallon
5 tank full, it would take quite a while to regenerate that, but
6 a lot of times they purposely, I believe -- you know, I think
7 they purposely let the level of inventory of it get low so
8 that if they needed to buy another product, they could use
9 that as a fill-in on the truck to finish loading it because it
10 was so heavy."

11 Q "When the perc would be spilled onto the asphalt, would
12 it react with the asphalt, if you know?

13 A "Very much so.

14 Q "And how would it react? What would you see?

15 A "You'd see the -- instead of a black, smooth blacktop, it
16 would start being rough, and it would start, for lack of a
17 better way of saying it, it would start kind of dissolving the
18 asphalt. It started making it soft. And then you'd start
19 seeing rocks, which, asphalt has rocks in it, also. You would
20 see rocks in it and stuff just because of the
21 perchloroethylene or perc was reacting and kind of breaking up
22 the asphalt.

23 Q "At some times was it necessary to repair the asphalt, if
24 you know?

25 A "Sometimes it should have been repaired. It usually

1 never was.

2 Q "Do you recall occasions when it was repaired while you
3 were there?

4 A "I recall one time in six to eight years.

5 Q "And who repaired it, if you know?

6 A "I don't know. It was just some asphalt company. They
7 were very professional. I mean, they did it just like you see
8 people repairing the streets, so it was a professional
9 contract company that did it."

10 Q "What's your recollection as to how often TCE was
11 received, trichloroethylene was received at Dyce Chemical
12 while you were employed?

13 A "I'm kind of glad you asked that question, because I
14 recall something else now.

15 "When we got a truckload of trichloroethylene, that
16 usually would come in a three-compartment trailer. And I can
17 visualize the company, PP, PPG, or PG&E. They were back in
18 Kentucky or Ohio or the Midwest somewhere. Because the only
19 time we'd get products in from them -- that manufacturer must
20 have made the three things that you people are concerned with.
21 We'd get a three-compartment trailer. One would have -- what
22 was the word you just said? T --

23 Q "I first said TCE, and then I said trichloroethylene.

24 A "Okay. We'd get -- that truck would carry TCE, which is
25 trichloroethylene. He'd bring me in some perc,

1 perchloroethylene, and he'd bring me in a third product. The
2 way I remember it, it was a name that sounded real similar to
3 trichloroethylene, but it was -- it was something like
4 triethylamine, and then it had Roman Numerals III after it.

5 "And I always -- that always confused me, because I never
6 really understood it, you know. I mean, I didn't have to,
7 because I, I didn't sell the stuff, and -- but it, it was a
8 similar product as far as smell and odor. And we only drummed
9 it, because we didn't have bulk tanks for it other than perc.

10 Q "Is your -- is it your recollection, then, that those
11 three products were received about equally in terms of number
12 of times?

13 A "I'd have to say somewhat, yes. Maybe more -- we'd
14 receive more perc than the other two products,
15 perchloroethylene.

16 "And I think Dyce had a couple three sources to buy perc,
17 and I think they only had one source to by the tri, the
18 trichloroethylene-type products, TCE. I could be wrong on
19 that, because I wasn't involved with purchasing, but that's
20 just an educated guess.

21 Q "What's your best estimate as to when the railcar of
22 hydrochloric acid had a spill?

23 A "I'm going to say that's probably early in my career. I,
24 if I remember correctly, I think it was after Mark Carpenter,
25 who was my first foreman, after he was fired, so whatever year

1 that was. It was sometime right after that, I believe,
2 because Rob, who I told -- you asked me earlier, who was my
3 friend. Rob would probably be one of the ones I think was a
4 friend, and I was concerned about it, and he was highly upset
5 with that hydrochloric acid leak."

6 Q "Which one are you talking about?

7 A "I'm talking about the railcar that was ruptured on the
8 side and blew out from air pressure and had a -- you know, the
9 whole side of it came out.

10 Q "What was in the railcar that tipped over when -- I think
11 you said the brakeman told you that the engineer had bumped
12 the car too hard, and it, as a result, it went past the
13 barrier, I take it, and tipped over?

14 A "Right. The end of the barrier --

15 Q "Yes.

16 A "-- it didn't have nothing more to go. The ground was
17 soft because that was at the end where the pond was.

18 Q "Um-hmm.

19 A "Some of this, I'm giving you my interpretation, because
20 nobody told me. My interpretation was the ground was probably
21 so soft, just because that area was constantly wet because of
22 the pond, and it had never had a railcar on it before to test
23 it, probably. But, I mean, and we're speaking of a full
24 railcar of product, plus the railcar's got to weigh 100,000,
25 200,000 pounds; I mean, heavy and big. And it would

1 naturally, you know, go off the end of a railcar. It would
2 sink. It would get into the ground. It would sink --

3 Q "And what was the product in there, if you know?

4 A "-- and tip.

5 "I think that was a hydrochloric acid car, also.

6 Q "And was there a spill from that?

7 A "Yes.

8 Q "Do you know how much product spilled as a result of
9 that?

10 A "I wasn't quite so involved with that car, because I
11 didn't work at the tank farm at that time. I worked -- I did
12 other duties, along with being up above on the upper
13 warehouse, but -- I suppose 2,000 gallons. Because the tank
14 itself, the car itself didn't *per se* bust open, but it spilled
15 from out of the cab, because it was on its side.

16 Q "And what's your best estimate as to when that occurred?

17 A "Early on in my employment. Within the first two years,
18 I believe. In fact, I'm quite sure. In fact, it was probably
19 the first year I was working, because I believe Mark
20 Carpenter, who was my foreman, he was still working there yet
21 then."

22 Q (By counsel for *Weiss* plaintiffs) "Mr. Johnson, you were
23 describing a used drum pile where you would pile drums before
24 they went back to the contractor from Utah. Where was that
25 drum pile?

1 A "Oh, where was that drum pile? Where are we at here?
2 Boy. I think I . . .

3 "Well, we kept the full drums, products that we resold,
4 on the back side, which would be the north side of the drum --
5 of the pole barn, we used to call it, because it was a big,
6 open -- it was open on one side for our forklifts to drive in.
7 So on the back side, which is the north side, we stacked our
8 drums on their side, not standing upright, but we -- and we
9 pyramided them. We'd start a row of 20 or 30 or 40 drums, and
10 then the next row would have one less, and they would just
11 keep going until you got up -- and when we got that full, we'd
12 start the next row. And we'd keep going until we got that
13 done, and then we'd start the next row, and so forth. And
14 that was on dirt and gravel.

15 Q "Did those drums have any kind of chemical product in
16 them?

17 A "They had minute, small amounts, because you can't --
18 unless you go through a lot of effort, you can't get all of it
19 out. You know, you can tip it over if you can. Most of the
20 time, see, we didn't empty the drums. We'd sell it to the
21 customer. He'd use it, and he paid for it, so anything that
22 he returned, he's losing money. So they would try to get a
23 lot of -- as much as they could, but they'd always be --
24 there'd be -- oh, if I had to put it into a -- there would be
25 a pint to a quart in it. It depends on how careless the

1 person was at emptying it.

2 Q "Did you take any measures to clean those drums before
3 you stacked them there?

4 A "No. We left them intact, alone, with product in them
5 and the 2-inch bung cap tight so it wouldn't leak out.

6 Q "And when the contract -- when the drum company came to
7 pick them back up, did they clean them out at the Dyce
8 facility, did you ever see?

9 A "No, I, I know for a fact they did not. They took them
10 as they were.

11 "The only exception to that, if we'd pick up a drum --
12 and Art was the name of the owner of this company. If it was
13 too heavy, and we'd pick it up and it had a lot of product in
14 it -- and he had kind of his own -- it was his company, so,
15 you know, if it had a small amount in it, 'small' meaning -- I
16 don't know what his gauge was, but all the drums I handled,
17 he'd take them if they had a quart, maybe up to a gallon, in
18 it, maybe, and throw them on his trailer. But if it had a lot
19 of product, whether -- we didn't know what the product was.
20 It could be Raid. It could be milk. Who knows what's in it?
21 But if it had too much product in it, he wouldn't take it, and
22 that was our problem. It was our drum, and he'd leave it
23 behind because it had product -- had something in it.

24 Q "What did you do with those drums that were left behind?

25 A "When Dyce built that concrete second -- those concrete

1 pads, I guess we'd call them, that was one of the ideas. They
2 thought they could get rid of some of this mixture of water
3 and chemical and put it in there and have nature evaporate it.
4 So we'd -- it was not a lot of drums like what you're saying,
5 but out of a stack of 500 used drums that need to be
6 reconditioned, there might only be three drums out of that 500
7 stack that had too much product in it, and we'd dump that into
8 the concrete-lined ponds.

9 Q "Do you recall what you did with drums like that before
10 those ponds were there or after you stopped using them?

11 A "Repeat that again, please.

12 Q "Do you recall what you did with those drums that had
13 some product left in them when you couldn't use the concrete
14 pits, before they were there, or after you stopped using them?

15 A "Oh, golly. You know, those kinds of things became a
16 problem. We'd just leave them because we knew the drum
17 company wouldn't take them. And Dyce Chemical, Monte, Jim
18 Diede, my foreman, we didn't decide to dump them, you know,
19 the product, if they had 3 or 4 gallons in them. So we just
20 sort of kept them, kept the drums and put them to one side.
21 And we just sort of -- out of sight, out of mind, I guess
22 would be a way of saying it."

23 THE COURT: All right. Call your next witness.

24 MR. MICKELSON: Your Honor, we will call by
25 deposition, Ken Kjos.

1 WHEREUPON,

2 MR. KEN KJOS,

3 called for examination through deposition by counsel for
4 plaintiffs, after having been previously sworn to testify the
5 truth, the whole truth, and nothing but the truth, testified
6 as follows:

7 EXAMINATION

8 Q (By counsel for *Weiss* plaintiffs) "Would you state your
9 name for the record?

10 A "Ken Kjos.

11 Q "Mr. Kjos, my name is Jory Ruggiero, and I represent the
12 plaintiffs in this matter, the people who live near the
13 Lockwood solvent site in Billings. And you and I just met,
14 and this afternoon was the first time you've had a chance to
15 talk to me?

16 A "Yes.

17 Q "Where do you live now?

18 A "I live in Williston, North Dakota."

19 Q "Okay. And you were employed at Dyce, right?"

20 A "Yes, I was.

21 Q "And that's the Dyce facility that's at 1353 Taylor Place
22 here in Billings?

23 A "That's correct, yes.

24 Q "And when did you work there?

25 A "I believe I left there seven years ago, so what would

1 that have been? '94. And I worked there, I believe, eight
2 years, so about '86 to '94, part-time and full-time.

3 Q "When was the part-time, and when was the full-time?

4 A "When I first started there, I was part-time. I was
5 going to college. I must have worked there for at least four
6 years on a part-time basis. And then when I got done with
7 school, I went -- turned it into a full-time position.

8 Q "Did you do the same job when you were working part-time
9 and when you were working full-time?

10 A "No. I mean, I changed positions a little bit. When I
11 first started, I was just a general laborer out there, and
12 then when I got the first full-time, I was a truck driver. I
13 ran small trucks into Wyoming and around the State of Montana.

14 Q "So how long did you do the general labor stuff? Was
15 that the first four years?

16 A "That would have been that first four years, yes.

17 Q "And go ahead. I didn't mean to interrupt you.

18 A "And then I was a truck driver for probably a couple of
19 years. I mean, being a truck driver also included some
20 general labor, but I was out on the road quite a bit. And
21 then I believe the last year and a half, two years I was with
22 them, I was the warehouse manager or foreman or --

23 Q "Why don't you tell me what you did as for that first
24 four years as kind of a general laborer.

25 A "Oh, as a general laborer, I would fill drums with

1 product. Did a lot of labor work like hand stacking drums
2 that came in to be filled, loading trucks, cleaning drums.
3 You know, unloading semis a drum at a time, bags at a time,
4 running forklift.

5 Q "Okay. How about when you were working as a truck
6 driver? What did your job entail then?

7 A "Well, a lot of the same duties, but with the addition of
8 loading trucks and hauling chemical to a customer in an
9 outlying area, whether it be Wyoming or another part of
10 Montana. And unloading at his location, and then coming back
11 and loading up for the next day's load.

12 Q "So during that time when you were driving a truck, did
13 you also -- part of your job was to move chemical around at
14 Dyce and load tanks and unload tanks?

15 A "Yes. I'm sorry, yes.

16 Q "And then how about as what you described as warehouse
17 manager?

18 A "Well, I did the same thing in that position, not as much
19 the filling of drums and unloading trucks than -- I was more
20 designating some of the other employees to do that, and then I
21 handled more of the warehouse paperwork, receiving reports
22 and, you know, taking care of all the warehouse paperwork,
23 doing orders and so on and so forth.

24 Q "So how many folks did you oversee in that position?

25 A "I suppose anywhere from five to seven, depending on

1 seasonal. Usually in the summer we'd add a couple extra kids
2 to do lawn mowing and painting and everything else, and --

3 Q "So that's five to seven folks that are working in the
4 warehouse?

5 A "Yes.

6 Q "And what's their job primarily?

7 A "Well, it would have been primarily what I was doing:
8 filling, unloading/loading semis, filling containers.
9 Basically all the general duties I was doing before.

10 Q "Okay. How many other folks were working at Dyce when
11 you were working there?

12 A "In the whole facility?

13 Q "Uh-huh.

14 A "Well, there would have been probably eight of us in the
15 warehouse and nine or ten in the front office, and then
16 probably four people that -- Charlton & Sons Trucking, they
17 did a lot of the big truck hauling for us. They probably had
18 four employees.

19 Q "And was that pretty constant for the eight years or so
20 you were there? Was there about that many folks?

21 A "Yeah, pretty constant.

22 Q "Tell me a little bit about Charlton's. What did they do
23 for you? Who were they?

24 A "They were, I guess for lack of a better word, I want to
25 call them a subcontractor where he owned the semis or the big

1 trucks that did a lot of our bulk hauling in and out. But it
2 was a combination where Dyce, I think, provided all of the
3 trailers and a lot of the insurance, and he owned the trucks
4 and handled the employees and so on and so forth."

5 Q "What kind of chemical did they move for Dyce?

6 A "Most of the products that we handled, mostly, you know,
7 probably 75 to 80 percent of it being acids and bases, going
8 to the gold mines and the power plants and so on and so forth,
9 and then you get into some of the alcohol products and glycol
10 products.

11 "There were some exceptions. He did not haul, oh, things
12 like chlorinated solvents like perchloroethylene or
13 trichloroethylene. They tended to stay way from them, but
14 they were such small quantity that, you know, you just -- they
15 were handling the large volume products for the most part."

16 Q "Do you recall who it was that you worked with as kind of
17 co-labor during that first four years that you were in the
18 warehouse?

19 A "Yeah. Dick Colver was the maintenance man there for all
20 of the years that I was there, but, then again, that -- by
21 being the maintenance man, he didn't do as much of the
22 warehouse labor, but he did some.

23 "Another employee that was there was Marvin Johnson when
24 I first started, but he wasn't there very long after I
25 started.

1 Q "Did you get to know Marvin very well?

2 A "Not very well. Like I say, he was there only, I'm
3 guessing, a few months after I started.

4 Q "Did you work with him sometimes?

5 A "Yes."

6 Q "Did Dyce pick up some employees from the time that you
7 started there in those first years that you were working until
8 the time right before you retired?

9 A "Yeah, I'd say there was probably only about four of us
10 in the warehouse when I first started, and to where there was
11 seven or eight in the warehouse when I left."

12 Q "Let's mark this Exhibit 8."

13 "Were there any wet spots north of the tank farm?

14 A "Where there was like a pond? Is that what you're
15 implying?

16 Q "Or if water accumulated there.

17 A "No, no, because it, it used to really drain to the
18 north. I mean, this -- it seemed to be a -- the whole
19 property up there was almost at a slant to where everything
20 drained to the north.

21 Q "What was it that drained to the north?

22 A "Rainwater. I mean, the whole -- I'm talking the whole
23 area here seemed to drain to the north, toward the river. The
24 river would be back here.

25 Q "Where would rainwater that hit the tank farm go, to the

1 best of your recollection?

2 A "When I was there, it was all contained in ponds that
3 were right next to the tank farm and where, like I say, it was
4 all cement. All the tanks were inside cement. And there was
5 three ponds there that any rain that landed in the tanks would
6 be contained in those ponds.

7 Q "Okay. So there were cement ponds just north of the tank
8 farm?

9 A "Yes. It was kind of all together with the tank farm.
10 The tanks were on cement and then just to the north of them
11 were ponds that contained any spills that would have
12 happened."

13 Q "Okay. We're looking back at Exhibit 8 now, the prior
14 photograph. And does this photograph look a little more like
15 you recall the facility looking when you moved there?

16 A "Yes. Here it is. Before, on the other picture, the
17 tanks were more lined up this way because this would be north
18 now to where they're now lining up this way, and here is those
19 storage ponds off the tank farm.

20 Q "And I just marked north in the direction that you
21 indicated, correct?

22 A "Yes.

23 Q "Do you recall where the perc tank was in the tank farm?

24 A "Do you want me to mark it with this pen?

25 Q "Please do, yeah. Let's mark that No. 1.

1 A "Right here.

2 Q "Okay. How about the xylene and toluene tanks?

3 A "Right there.

4 Q "Let's mark those No. 2.

5 A "(Complied with request.)

6 Q "Where was TCE stored, trichloroethylene?

7 A "The trichloroethylene, I don't remember there ever being
8 a bulk tank for trichloroethylene. Usually when it came in,
9 we put it in drums right off the truck and then stored those
10 containers.

11 Q "Where were the drums stored?

12 A "The drums would have been in this building right here,
13 underneath this. This is an open face. The building is open
14 on this side and a wall on this back side. It was more of a
15 lean-to, and underneath this building is where the drums were
16 stored.

17 Q "Okay. Can you label that building 3?

18 A "(Complied with request.)

19 Q "Did you sometimes drum perc off of trucks as well?

20 A "Yes.

21 Q "Did you do that in the same place that you drummed TCE?

22 A "Okay. Now we did not drum TCE in this building. That's
23 where the drums were stored. They would have all been
24 drummed -- it's hard to see in this picture, but there's --
25 the little square right here is our drumming shed.

1 Q "Okay. Can you mark that with a 4?

2 A "(Complied with request.)

3 "And there was a scale under there, and that's where most
4 of the products were drummed off because they were all drummed
5 off over the scale.

6 Q "What about TCE, if it came in off a truck?

7 A "They would have backed the truck down this alleyway, and
8 we would have drummed it off right there.

9 Q "Okay. Can you draw a circle around the alleyway that
10 you've indicated there and put a 5 in it?

11 A "(Complied with request.)

12 Q "And that would have been drummed off just outside that
13 shed that's labeled 4?

14 A "Well, the truck would be parked, like I say, inside the
15 circle, and we would run hoses over to this building where the
16 scale was. We'd set the drums inside this building on the
17 scale. We would drum the product off, and then the forklift
18 would take those drums after they were filled, pull it over in
19 the storage shed, and bring another four empty drums to fill.

20 Q "So the drums would actually, when they were being
21 filled, they would be inside the building with the 4 marked on
22 it?

23 A "Yes.

24 Q "And the truck would be in the area marked as 5?

25 A "Yes, that's correct.

1 Q "With a hose between the two?

2 A "Yes.

3 Q "All right. And TCE would have been drummed there as
4 well?

5 A "'TCE' being trichloroethylene?

6 Q "Trichloroethylene.

7 A "Yes, that's correct.

8 Q "Can you mark with a 6 the pits that you were describing
9 earlier that collected rainwater and rinsewater from the tank
10 farm?

11 A "There is three different ponds, one, two, and three, but
12 they all three --

13 Q "And can you draw for me any ditches that ran to these
14 ponds?

15 A "Explain that again, please?

16 Q "Tell me how water that fell on the tank farm would end
17 up in those ponds.

18 A "There wasn't really ditches, *per se*. All these tanks
19 were sitting in a cement -- there was walls all the way around
20 these tanks, and any rain that came into the cement areas of
21 these, it was just natural runoff right into these ponds. So
22 there wasn't really a ditch or a channel from these tanks into
23 there. It was just the natural slope of the whole floor of
24 that ran into these ponds.

25 Q "Okay. Do you recall any sort of grated drain in this

1 area?

2 A "There was a grated drain right there, and what that
3 basically collected is that ran into these ponds.

4 Q "Can you mark that with a 7, the drain?

5 A "And that would collect, if there was a spill in the
6 drumming shed, you know, it was open on the floor, and it
7 would go to that drain, which would then go to these ponds.

8 Q "What was the floor of the drumming shed made of?

9 A "It was a cement floor in the drumming shed, but the
10 walls were all set up 4 inches off that cement floor so that
11 water or anything that spilled inside that shed would go
12 outside. It wouldn't be contained by the wood walls. It
13 would go -- be contained by these pits.

14 Q "And was the ground all cement between the drumming shed
15 and this drain?

16 A "Yes.

17 Q "Between the drain that's labeled No. 7 and the ponds
18 that are labeled No. 6, was this a -- was there an open,
19 was -- there a line there or a ditch or --

20 A "There was a cement trough built there, and then we had
21 grates, metal grates over the top of it so that you didn't,
22 you know, you didn't drop things into it or you could walk
23 around the tank farm and not have to step in it.

24 Q "Can you draw that trough in?

25 A "(Complied with request.)

1 Q "Let's label that No. 8. Just make a line off of there.

2 A "(Complied with request.)

3 Q "And what did this -- on the south side of this drain
4 labeled No. 7, was there any ditch or channel across this area
5 that's labeled No 5?

6 A "No, there was not a ditch or channel across this area.
7 The whole area would also run into this grate, or there was
8 another, another one right here that ran into this.

9 Q "Go ahead and draw that in.

10 A "(Complied with request.)

11 Q "Let's label that No. 9.

12 A "So that this whole area here, rainwater or spillage or
13 anything, would run into these grates and into these ponds.

14 Q "What was the ground like in this area that's labeled
15 No. 5?

16 A "It was partially cement and partially asphalt.

17 Q "Can you kind of draw where you recall that line being?

18 A "It would have been cement all up the side.

19 Q "Why don't you just write 'cement' in there, if you
20 could, and then 'asphalt.'

21 A "(Complied with request.)

22 "Now I'm not going to remember the year, but we tore out
23 this asphalt and made the rest of this cement, also while I
24 was working there. It wasn't the first four years when I
25 worked part-time, but it would have been in the next two

1 years.

2 Q "Okay. And where did the asphalt and cement end out
3 there?

4 A "This would have been all asphalt and cement here.

5 Q "And is that the way the ground appeared at the time when
6 you first began working there?

7 A "When I was first working there, this was all gravel, and
8 then shortly after I started, they started hauling in fly ash
9 from the coal generation plant to put in these areas because
10 it made -- you know, it was a good base, so rather than
11 cementing it all at very high expense, we hauled in fly ash.

12 Q "Was this asphalt when you first began to work there?

13 A "Yes.

14 Q "Where did you store used drums?

15 A "At this time when I first started?

16 Q "When you first started working there.

17 A "Well, this picture is a little different than when I
18 first began, but a lot of them were stored right here, and
19 then --

20 Q "Can you mark that with a No. 10?

21 A "And then also back here.

22 Q "Let's mark that with an 11.

23 A "You're talking empty, used containers?

24 Q "Correct.

25 A "Yes, that's correct."

1 Q "And what was Dyce doing with those drums?

2 A "All of the empty containers that Dyce had, there was an
3 outfit out of Salt Lake City called Beehive Barrel & Drum that
4 would pick up all these, all the used containers, take them to
5 his facility. He would recondition all of these containers,
6 and then he would bring them back reconditioned or like new,
7 and then we would refill those containers."

8 Q "Did you ever see any of those barrels leak?

9 A "The drums they brought back?

10 Q "The drums that were stored in Areas 10 or 11.

11 A "There would be an odd one once in a while that maybe was
12 laid on its side that would leak a little bit out of the bung.

13 Q "Is that --

14 A "I can't say that I seen one leaking around the seam
15 because they were always empty by that time.

16 Q "Did some of them have chemical left in them?

17 A "There would be a little bit of chemical residue, yes.

18 Q "Did you ever have enough chemical left in those drums
19 that Beehive didn't want to take it back?

20 A "Yes.

21 Q "How common was that?

22 A "Every time there would be some drums that he would want
23 to empty so that he didn't have to -- he didn't want to take
24 the chemical with him, whatever was left in the drum.

25 Q "Sure. How many drums might that be out of a hundred, on

1 average?

2 A "Two, three.

3 Q "And what would you do with those drums?

4 A "A lot of times that -- we would take an empty container,
5 we would have an empty drum out there that maybe had some
6 product in it, and he would pour those other drums into that
7 container so that you'd kind of combine what was in three
8 drums into one, or what was in four drums into one, and we
9 would keep -- you know, we would not take that -- he would not
10 take that product."

11 THE COURT: Let's stop there for a noon recess.

12 MR. MICKELSON: Okay.

13 THE COURT: Ladies and gentlemen, we're going to be
14 in recess for the noon hour. I have another matter I have to
15 handle, completely unrelated, that I'm going to start at
16 1 o'clock. It's going to take me about a half hour, so the
17 recess, we'll start up again at 1:30.

18 I give you the usual admonition. Recess until 1:30.

19 THE LAW CLERK: All rise.

20 (Recess taken from 12:00:51 to 13:30:35.)

21 (Open court.)

22 (Jury present.)

23 THE COURT: Please be seated.

24 MR. MICKELSON: Your Honor, the exhibit that's being
25 referred to, if we could call this up, Soco has no objection

1 to Exhibit 4143.

2 THE COURT: It's admitted.

3 (Exhibit 4143 was received in evidence.)

4 MR. MICKELSON: Thank you, Your Honor.

5 Page 32.

6 Q (By counsel for Weiss plaintiffs) "So what would you do
7 if you had some used drums that had chemical in them that you
8 didn't know what the chemical was? Did that ever happen?

9 A "There was usually -- he'd keep separate glycols. He
10 wouldn't just dump bases or acids and glycols and so on and so
11 forth. And then so there wasn't mixtures of six different
12 products together in the same container.

13 Q "Did you ever have product left in a container that
14 wasn't clearly labeled and you weren't quite sure what it was?

15 A "Yes."

16 Q "What if you didn't know what the product was and it
17 didn't evaporate? Did that ever --

18 A "For the most part, we usually knew what the product was.

19 Q "And how did you know that?

20 A "I can't remember times when we -- well, you could
21 usually smell, tell by the odor. You know, as you worked
22 around these chemicals enough, most of the different things
23 had different odors, and you could tell from that.

24 Q "Did perc have an odor?

25 A "Yes, a distinctive odor.

1 Q "What did it smell like?

2 A "A drycleaning place. Once you had -- when I first got
3 there, I didn't know what perc smelled like. Once you've been
4 around it once, you'll always remember it. I mean, it's got a
5 distinctive, a distinctive odor from anything else.

6 Q "Was it Dyce policy to take drums that came back in from
7 customers that had left-over product in them and empty those
8 drums back into your inventory?

9 A "It wasn't policy. It was they tried not to bring drums
10 back from customers with product in it. We got to where we
11 wouldn't -- us as truck drivers got to where, if there was
12 partial drums out in the field, we would not bring them back,
13 and, once in a while, one would squeak through. Sometimes, if
14 one came back, we'd send it back to the customer.

15 Q "Did other folks bring you drums sometimes?

16 A "They would sometimes. A customer would bring his empty
17 drums back in, and, you know, because they were charged a
18 deposit on these containers, and they'd bring them back, and
19 once in a while there would be one that was left with product
20 in it.

21 Q "What would you do with a drum that came back with perc
22 in it?

23 A "A drum with perc -- perc is really volatile, so it
24 evaporated, so you would either leave the lid off that drum
25 and it would evaporate, or put it in a bucket and it would

1 evaporate out of the bucket."

2 Q "Let's talk a little bit more about the ponds that you've
3 labeled No. 6. What were they made out of?

4 A "The ponds themselves were made out of cement.

5 Q "Were you there when they were poured?

6 A "No. They were there when I started.

7 Q "Okay. Do you know how, if they were lined or --

8 A "They were -- we experimented with several linings. We
9 would put a lining on. If we started to see maybe the lining
10 bubble up and not holding up to the chemical, well, we tried
11 to line it with something else.

12 Q "What did you use for linings?

13 A "Oh, I don't know if I know exactly what was used. A lot
14 of times it was some special coatings that Dyce actually sold,
15 but I don't remember the names of them.

16 Q "So did you put new linings in while those ponds were
17 full of water?

18 A "No.

19 Q "So did you drain those ponds so you could put new
20 linings in there?

21 A "Yes.

22 Q "And how did you drain the ponds?

23 A "Once the product was in them, the wastewater was
24 neutral, was a neutral pH, and we could pump them down into
25 these ponds here.

1 Q "Now were these ponds here when you first -- were these
2 ponds here when you first started?

3 A "Not when I first started, but they were built shortly
4 after.

5 Q "How did you drain these when you first started?

6 A "When I first started, they also put in -- and you could
7 just barely see them here. There's a couple tanks here. It
8 was actually a --

9 Q "Can you label those No. 12?

10 A "(Complied with request.)

11 "We would pump the water up into these two tanks. They
12 were open at the top. And then inside these tanks is where we
13 did a lot of the neutralizing; you know, we would add a base
14 to it if it was acidic, or vice versa. And then once it was
15 pumped into those tanks and neutralized, then we could send it
16 down to these ponds, or we did it right into those tanks.

17 Q "But before those ponds were here, where would you
18 discharge this water once it was neutralized?

19 A "For the most part, we didn't really discharge much. We
20 were able to evaporate product out of those ponds. We did a
21 lot of -- you'd run an air hose in them and bubble it, and it
22 would evaporate, or -- but if it was getting to where, as we
23 would catch more and more rain and all that, they decided
24 they'd had to have something better off to do that, and that's
25 when they started building these ponds.

1 Q "What made them decide that, do you know?

2 A "They didn't want to -- you know, you'd get so much you
3 didn't want to -- you just had to have a place to put it
4 besides just these pits or it would start backing up into the
5 tanks themselves. You know, so as we got handling more and
6 more product -- you know, the more product you'd handle, you'd
7 get a little bit more waste into these pits. That's -- you
8 just added on. And then after these ponds, there's even
9 another one out here.

10 Q "Go ahead and draw that in for me, too, if you would.

11 A "(Complied with request.)

12 Q "And can you mark the two ponds next to it with a 14?

13 A "(Complied with request.)

14 Q "Now the ones you marked with a 14 you described as being
15 built earlier than the one you marked with a 13, correct?

16 A "Yes. These ones were -- 14 was built shortly after I
17 started.

18 Q "What did you call 13?

19 A "As far as what was -- that would be our evaporation
20 pond. Both of these were called evaporation ponds. That was
21 their only purpose.

22 Q "How many times do you recall that Dyce tried different
23 liners for the ponds labeled No. 6?

24 A "Probably four in my tenure.

25 Q "Is that four different kinds of linings?

1 A "Yes, and they would try to do this one down on the end.
2 What would that be, west?

3 Q "Yeah.

4 A "It had more acidic products in it, so, you know, you
5 would have to have a little bit different type of line for
6 that pond than basically they could use for these two ponds.

7 Q "Why did they need a lining?

8 A "Well, because some of the products, especially like
9 these acidic products, would be -- over time, they were hard
10 on the cement and the base. You know, they would tend to eat
11 away, I guess, for lack of a better word, at the lines in the
12 cement. So by lining them, then you wouldn't get that eating
13 away of the cement itself.

14 Q "Was the cement thick enough that it wouldn't matter if
15 it ate some of it away?

16 A "Well, I don't know the exact thickness of the cement in
17 the floor and in the walls. That was all before I got there.

18 Q "So was it basically a concern that it didn't start
19 leaking or --

20 A "Yes, yes.

21 Q "And who was it that made the decision to use different
22 linings?

23 A "Oh, it would have been a combination of the warehouse
24 manager at the time, the salespeople who knew the properties
25 of the linings, and then the general manager.

1 Q "Did you ever hear anybody talking about concern over
2 potential leaking on those pits labeled No. 6?

3 A "Well, that's why they put the linings in them, is they
4 didn't want -- you know, over the long term, if you leave
5 those products in there and let them eat on that cement,
6 eventually there was that possibility of a leak happening,
7 so --

8 Q "Did anybody ever talk about any known leaks in those
9 pits --

10 A "No, no.

11 Q "-- that you recall?

12 "How many times, and if you don't know the answer to
13 this, it's fine, but how many times were the linings changed
14 before these ponds were, these ponds labeled 14 were built?

15 A "I don't know. I don't -- I don't know.

16 Q "Was any wastewater from the pits labeled No. 6 ever
17 drained to anywhere other than the ponds labeled 14?

18 A "The pond labeled 13, that would be the only one that
19 I -- and then these tanks, yeah. No.

20 Q "Before Ponds 13 and 14 were ever built, did the pits
21 ever fill up enough that they needed to be drained?

22 A "After a rain, yes.

23 Q "And so how did Dyce accomplish that?

24 A "Well, if the ponds didn't have anything in them before
25 the rain, you know, and you knew it was just raining in those

1 ponds, you'd let it go here on the fly ash.

2 Q "Okay. Can you draw me an arrow to where that -- what
3 you're talking about there, where the pits would drain?

4 A "(Complied with request.)

5 Q "How big a rain did it take to fill those pits to
6 overflowing when they were empty when it started?

7 A "I've never seen the pits filled to overflowing. I mean,
8 it would have taken -- you know, if we had a huge two-day
9 rain, it would get up to where it was coming back into the
10 area where the tanks are sitting, but I've never seen it fill
11 to the point of overflowing over the walls.

12 Q "How high did it have to get before they were drained?

13 A "Pretty high. I mean, up into the tanks. You know, we
14 didn't want it coming up over the, all the valves and stuff on
15 the tanks, and all these tanks sat up, I'll bet, a foot off
16 the cement floor in there, so it would have to get well up
17 over that foot and start getting up, covering the valves
18 before --

19 Q "Can you label the two arrows that you drew No. 15?

20 A "(Complied with request.)

21 Q "And what are those, again?

22 A "Those are where, if there was enough water in those pits
23 and they couldn't be filled anymore, you would let -- if you
24 knew there wasn't any product in that rainwater, you could
25 drain the water.

1 Q "How did you know that there wasn't any product in those
2 pits?

3 A "Well, those pits would be dry a lot of the times. I
4 mean, there would be nothing in them.

5 Q "Was there some sort of monitoring kept, to know when the
6 pits were dry and when they had wastewater in them from
7 washing spills?

8 A "No, I mean, they're -- us out in the warehouse always
9 knew when they were dry and when they weren't, but I can't say
10 that there was a monitoring sheet kept or anything that kept
11 track of that.

12 Q "So if it rained on a Wednesday and somebody spilled a
13 chemical on a Thursday and it got washed down into those pits
14 and it rained again on Thursday and you needed to drain those
15 pits, was there any way for you to know whether or not there
16 was or wasn't chemical in the pit for sure?

17 A "We knew amongst ourselves, but I can't say as for sure,
18 no, a hundred percent.

19 Q "How did you know amongst yourselves?

20 A "Well, we always knew that if there was any kind of -- if
21 there was a spill while we were drumming perc or while we were
22 drumming trichloroethylene, I mean, that was -- everybody in
23 the warehouse knew. The people in the office knew if there
24 was ever a major thing like that, so --

25 Q "And how much would have to spill before everybody in the

1 office would know?

2 A "Oh, I'd say 5 gallons or more.

3 Q "Was it pretty common with a lot of these chemicals to
4 spill a quart here and there?

5 A "Yes.

6 Q "And how often might that happen when you're, say,
7 drumming perc?

8 A "I'd say once, once while you were unloading a semi load,
9 and actually a quart might be -- what you'd get is you'd
10 always get maybe, you know, a few drops when you were hooking
11 up and maybe a few drops when you unloaded, but, of course, we
12 tried to catch those drips with buckets, too, but you never
13 got them all. You know, there was always some that hit the
14 ground.

15 Q "Sure.

16 A "And a quart might be a high figure, but it happened.

17 Q "And where did that chemical get washed?

18 A "Well, it would, it would be on the cement here, so it
19 was sloped to this drain, this No. 7, and then it would go
20 into the end pit here of the No. 6 pits, the very east one.

21 Q "Okay.

22 A "You know, but a lot of times when there's that quart --
23 remember I said perchloroethylene was very volatile? A lot of
24 times, before it even got down here, it evaporated. It was
25 that volatile that it --

1 Q "And did you folks that were working in the tank farm
2 have a policy of cleaning up spills pretty quick after they
3 occurred?

4 A "Oh, yes. Yeah, because you didn't want to work in them,
5 and if a spill happened, you stopped, and especially one of
6 every size -- of any size. If it was just a cup, you know, it
7 was nothing that you really worried about. But you start
8 getting gallons, yes, then you cleaned it up.

9 Q "And how did you clean it up?

10 A "Well, like the perchloroethylene, a lot of times you'd
11 just, you'd just wipe it up with rags, and your rags would sit
12 out, and, you know, any of the perc that was in the rags would
13 evaporate. Or if there was an acid or base spill, we'd make
14 sure that we rinsed it down with water so it was running into
15 these ponds. You know, we didn't want to be walking through
16 it and stuff, so we'd stop and shut down and dig out the water
17 hose and wash it down into the ponds."

18 Q "Did you ever see a mid-range amount of perc, or, well,
19 perc spilled, for example?

20 A "What would you consider a mid range?

21 Q "Like between a gallon and 5 gallons.

22 A "No, not that quantity.

23 Q "How about xylene or toluene?

24 A "Not that quantity in them, either.

25 Q "Never saw a gallon spilled?

1 A "Not that I'd seen that much spilled. The cup or quart,
2 yes. When you start getting into the gallons, no. The only
3 products that, you know, we tend to have spilled in the
4 gallons would be like caustic soda in these tanks, or if you'd
5 run over a tank unloading from a railcar or something, but --

6 Q "Why was that? Were you just more careful with the
7 chlorinated solvents?

8 A "Yeah, you were always more careful.

9 Q "Why was that?

10 A "Just because we knew that they were more -- how do I
11 want to put it? They were more hazardous. You couldn't just
12 neutralize the pH and not worry about them. And they were a
13 lot more expensive, too, so you were -- and you handled such
14 small quantities that, you know, handling the small
15 quantities, you just had less chance of ever spilling than a
16 product that we hauled railcar after railcar after railcar
17 of."

18 Q "How often would you get enough rain that you needed to
19 drain the pits?

20 A "Once every couple summers. Once every two years.

21 Q "And how long? How many times do you remember the pits
22 being drained?

23 A "Once. Like I say, once they built these, you could take
24 all of the water from these and down into here, and then it
25 would be evaporated before they were --

1 Q "And how long did you work there before they built these?

2 A "I believe they built this one either the first summer or
3 the second summer I worked there, No. 14.

4 Q "Okay. So you wouldn't have had more than a couple
5 summers to observe?

6 A "That's right.

7 Q "How did they get the water from the pits labeled No. 6
8 out to the ponds labeled No. 14?

9 A "It would be pumped into these tanks labeled No. 12."

10 Q "So how did -- what were these ponds here used for?

11 A "Once water was evaporated in these ponds, it was put
12 down into these ponds -- not evaporated. Excuse me.
13 Neutralized in these ponds. It was pumped down here for
14 evaporation.

15 Q "Now you're talking about pH?

16 A "pH.

17 Q "Was there any testing of these ponds done for, say, at
18 the time when these -- when the ponds labeled 14 were first
19 built? When Dyce went to move water out of the pits labeled
20 6, did they do any testing on that water other than pH before
21 they moved it?

22 A "Nope.

23 Q "So they didn't test for hydrocarbons or chlorinated
24 solvents or anything like that?

25 A "We did no special testing.

1 Q "Was chemical ever dumped directly in these evaporation
2 basins labeled No. 14?

3 A "No, not that I remember. Those were built strictly for
4 evaporating water.

5 Q "Nobody ever took any remnant, left-over, off-spec
6 chemical or anything like that and dumped it in at the top to
7 let it evaporate off?

8 A "Not that I remember.

9 Q "Okay. How did these ponds labeled No. 14 work? Did
10 they work pretty well?

11 A "They worked okay. They were -- when they built them,
12 they didn't evaporate as much water as we wanted, and that's
13 why they built this No. 13 pond. So then we had more volume.

14 Q "Do you have any idea what the volume was of these ponds
15 labeled 14?

16 A "No, I don't.

17 Q "Did you ever see them fill up?

18 A "Plumb full? No.

19 Q "Did you ever see any need to drain them? Were they ever
20 drained?

21 A "Into this pond?

22 Q "Before this pond labeled 13 was built, were the ponds
23 labeled 14 ever drained?

24 A "I don't remember them ever being drained.

25 Q "Was there a problem with having insufficient volume in

1 these ponds?

2 A "That's why 13 was built, because they didn't feel --
3 these would get pretty full, and, you know, they were afraid
4 that we'd be getting more rain and we'd get more water than we
5 knew how to handle, and that's when they built this pond.
6 This pond has got to be four times the size of these ones.

7 Q "So it's big?

8 A "Yes.

9 Q "Can you bet -- can you be certain, as you sit here
10 today, that these ponds labeled 14 were never drained?

11 A "No.

12 Q "How about the pond labeled 13? Do you know if it's ever
13 been drained?

14 A "'Drained' -- clarify that for me, please.

15 Q "Emptied.

16 A "Emptied, yes.

17 Q "Had water taken out of it?

18 A "Yes.

19 Q "What was that for?

20 A "As they got to -- if they got to where there was too
21 much, too much water, I mean, if the water started filling up
22 to where they were going to have too much, if it was neutral,
23 they would let some out.

24 Q "And where would they let -- where would that water go?
25 Can you label that arrow with a 16?

1 A "(Complied with request.)

2 Q "So you just drew an arrow off the north side of the pond
3 labeled 13; is that correct?

4 A "That's correct.

5 Q "How would that water be drained?

6 A "With a siphon hose.

7 Q "Can you tell me, have you ever -- did you ever do that
8 process yourself?

9 A "No.

10 Q "Who did it?

11 A "I believe Travis did once. I believe that's all I
12 remember.

13 Q "So how would that work? How would you drain that with a
14 siphon hose?

15 A "Well, you would get a siphon going, and I don't know if
16 you've ever seen a siphon. With a hose, you'd get it full of
17 water and then flip it over the edge of the pond, and once the
18 siphon was going, it would basically suck the water out of the
19 pond with the siphon.

20 Q "How deep was that pond, No. 13?

21 A "Three to 4 feet. Right in there.

22 Q "So could you dry that out with a siphon hose?

23 A "No.

24 Q "How much of it could you get off with the siphon hose?

25 A "Three-quarters of it.

1 Q "And the time that you saw a drain, was that about how
2 far down they drained it?

3 A "I'd say yes.

4 Q "How could Dyce be sure that there were no chlorinated
5 solvents in that pond, No. 13, when they drained that?

6 A "Well, there was no -- they knew that there was no large
7 amounts because, of course, we knew when there was spills, if
8 there was a spill. And if it was done, it was because of the
9 rainwater, you know. If we had a whole bunch of rain come
10 through here and then into there, I guess there wasn't any
11 elaborate testing done.

12 Q "Was there any way for Dyce to be sure that there wasn't
13 chlorinated solvents or benzene or toluene or xylene or carbon
14 tetrachloride in those ponds before they drained them?

15 A "No. I don't remember ever handling benzene.

16 Q "Okay. Do you recall the instance where -- you said
17 someone drained this pond, No. 13. Do you recall about when
18 that might have been?

19 A "One of my last four years of working there.

20 Q "You can't recall any more specifically than that? Do
21 you recall? Are you sure it was Travis that told -- that did
22 that?

23 A "No. I'm not for certain, no, boy, as far as getting a
24 closer date.

25 Q "I know this is hard when you're thinking back ten or 15

1 years.

2 A "It would have been one of my last three years there. I
3 don't recall.

4 Q "Okay. Now you said Pond 13 had about four times the
5 volume of the ponds labeled 14.

6 A "Yes, that's correct.

7 Q "And yet Pond 13 filled up at one point to the point
8 where Dyce thought it needed to be drained, and it caught the
9 same water that the ponds labeled 14 caught all by themselves
10 before Pond 13 was built, right?

11 A "Correct.

12 Q "Was there some anonymous rain event or something that
13 caused Pond 13 -- enormous rain event or something that caused
14 Pond 13 to fill up?

15 A "Yes.

16 Q "What was that?

17 A "Well, at the time when it was run over, that was the
18 reason, was because we had a lot of rains that summer when it
19 was done, so we were getting more water than we could handle,
20 and it's -- like I say, I only remember that one time."

21 Q "Do you remember any other ditches or drains on this
22 property that you haven't drawn for me already?

23 A "There was a ditch right here, and that would run through
24 this building down to here, and then it would empty into --
25 there was a wall right here, and it would come through the

1 wall and into this pond, and that was basically for -- it
2 drained anything in this building. If there happened to be a
3 leak in this building or if there happened to be a spill in
4 this parking lot, it would hit this. There was a grate over
5 the top of it that was --

6 Q "Can you label that drain 17?

7 A "(Complied with request.)

8 Q "And the grated portion that you just described for me is
9 basically where the arrow off of the 17 hits the drain; is
10 that correct?

11 A "The grated portion was all the way from here, here, and
12 down here.

13 Q "Was it the whole length of that drain, was grated?

14 A "Yes, it was, and that was so we could drive over it with
15 trucks. You could walk over it. And the same as the grate in
16 here so that you weren't dropping things into it.

17 Q "Was it -- what was the ditch? What was that drain made
18 of?

19 A "It was a cement, cement drainage area just like these
20 ones in the tank farm. It was a cement trough, for lack of
21 better words, and then it had the grates over the top."

22 Q "Was there any change in Dyce's -- the attitude of the
23 managers at Dyce towards safety during the time when you
24 worked there?

25 A "Well, yes. I mean, I worked there a long time, and --

1 or what I considered to be a long time, and we generally got
2 more and more safety-conscious, you know, the longer I worked
3 there. And I believe that's with every industry, is lately
4 they're all more safety-conscious, the way they do things,
5 safety meetings, training, and so on and so forth, so it was
6 more liberal when I started than it was when I left.

7 Q "What do you mean by that?

8 A "There might not have been as much training going on when
9 I started than there was when I left.

10 Q "Were you part of that process, making this a safer
11 facility?

12 A "I guess I was part of the process because when I was a
13 warehouse foreman, you know, it was my duty to do that, but I
14 can't say that I spearheaded a lot of the training. A lot of
15 that was done by Jim Diede. He was kind of the head of all
16 the safety and that, and he would tell us what we needed to be
17 doing. And we all got, you know, more safety-conscious all
18 the time.

19 Q "What kind of things changed from the time when it was
20 more liberal when you first came there?

21 A "Well, more than anything, training on a monthly -- you
22 know, when I first started, there was some training of the
23 warehouse employees in regards to forklift training or
24 first-aid training and CPR. It was done very seldom, but, by
25 the time I left, it was done quarterly or monthly.

1 Q "How was it done for you when you first came there,
2 safety training?

3 A "Well, when I first came in, you know, I was trained on
4 self-contained breathing, wearing the half face masks. Once
5 you were trained once, you know, you didn't really go through
6 the training again until we started doing it on a more regular
7 basis. You were showed what to do when you were filling drums
8 at one time, and I really didn't think about it anymore."

9 Q "So what other kind of training did you get besides the
10 SCBA training and the self-contained breathing apparatus
11 training?

12 A "We got training on the different chemicals we were
13 handling.

14 Q "How did that happen?

15 A "A lot of it come along when Holland bought out Dyce
16 Chemical, them being a larger corporation and having a lot of
17 other -- more facilities. They just updated our safety
18 program to a different level than where we were before.

19 Q "Did they just send somebody out to beef up your safety,
20 or did they just -- how did they do that?

21 A "Well, I believe that they had an overall safety guy who
22 visited with Jim Diede, and then -- and they went over, 'These
23 are the things that you will start doing that maybe you aren't
24 doing right now,' and -- yes.

25 Q "Which company is that we're now talking about?"

1 "Mr. Kjos, I just have a couple more questions for you
2 about these ponds, and then we'll move on to another topic.

3 "At the time when you explained that the pond labeled as
4 13 was siphoned off into the field north of it, who told the
5 person that siphoned it that they could go siphon it?

6 A "Jim Diede, the -- he was the safety, safety coordinator
7 or whatever at the time."

8 Q "Let's talk about transferring chemical to skid tanks,
9 and let's start talking about perc.

10 "How would you transfer perc to a skid tank during the
11 time that you worked at Dyce?

12 A "Perc had its own designated tank that we would deliver
13 to customers in, so we would put that designated skid or tank
14 on the scale inside this drumming shed, and we would fill it
15 out of the tank.

16 Q "Okay. You're pointing to the drumming shed labeled
17 No. 4?

18 A "Yes.

19 Q "Okay.

20 A "And the tank labeled No. 1, you would basically open up
21 the valves on that tank, and that line ran into the drumming
22 room, No. 4, and then you would set that skid on the scale,
23 and you would fill it by weight as to how much, and then --

24 Q "What were you filling it with?

25 A "You would fill it with a -- it would come out of the

1 wall with our plumbing, and you would hook it up to a hose and
2 valve, and you would run that hose and valve down to the top
3 of the tank. It was a short tank. And you would fill that
4 tank to a certain weight, and then you would shut your valve
5 off. You would shut your valve down at the tank, and then you
6 would shut the valve up on the plumbing on the wall, and then
7 you would open your valve down on the tank so you drained your
8 hose and your fittings. And then you would unhook your hoses,
9 and you'd -- the hoses were designated, so you would put
10 couplers in the ends, and then there was a hose rack right
11 here where you would put the hoses afterwards.

12 Q "Okay. Can you draw that as well, the hose rack? And
13 let's draw a line and label that 19.

14 A "(Complied with request.)

15 Q "Was there ever any product left in that hose?

16 A "It had just been -- if there was -- our valve was up
17 high in the air, and the tank was down low, so if there was
18 product left in there, it would have been some drops. It
19 would never have been in any certain, large quantity or
20 anything like that.

21 Q "So just if any drops would drip out there on the ground?

22 A "For the most part, if -- that could happen. If you were
23 careful, you could plug the ends before any of those drops
24 fell out, but, yes, those couple drops would drop onto the
25 ground.

1 Q "Did you have a -- was there a Dyce policy of plugging
2 the ends of the hoses?

3 A "Yes.

4 Q "And was that policy in effect the entire time that you
5 worked at Dyce?

6 A "Not when I first started. That policy came into play,
7 like I say, as we got more and more safety-conscious.

8 Q "Do you remember when that policy started?

9 A "One of my last four years. I don't, I don't remember
10 when.

11 Q "And did you start a similar policy at the time for
12 chemicals like xylene and toluene?

13 A "Yes.

14 Q "And before that, that time, there wasn't any policy for
15 those hoses, either?

16 A "That's correct.

17 Q "The end of the hose that actually went into the skid
18 tank that you were filling, what did the end look like?

19 A "It was a male quick coupler that we would attach the
20 valve to. It was a quick-attach coupler that just had --
21 you'd slide the coupler on and fold two wings, and it was
22 connected.

23 Q "Did you ever spill any perc during that process of
24 filling the skid tank?

25 A "Me, myself?

1 Q "Yes.

2 A "As far as a couple drops, yes. Any sizable quantity,
3 no.

4 Q "Never spilled a pint?

5 A "No.

6 Q "Did you know if anyone else ever did?

7 A "I don't believe so. It was a fairly simple process."

8 Q "Okay. Did you ever see any spills of perc, minor or
9 major, associated with that process of bringing the perc back?

10 A "There was a possibility of that few drops, or, you know,
11 a few ounces when somebody filled it, but there wasn't any
12 spills as far as from the skid tank itself or the hose on that
13 skid tank.

14 Q "Tell me about how perc came into your facility.

15 A "Well, perc would come in on a semi-trailer, semitruck.
16 Normally the truck was never just perc alone. It was one of a
17 couple different products. They would come in and, like I
18 say, back down into this numbered area, 5, and then we would
19 offload off that truck either into the bulk tank or into the
20 drums at that time.

21 Q "Tell me about offloading into the bulk tank.

22 A "Well, you would uncouple. On the bottom of the truck,
23 there would be a discharge outlet. You would run a hose. You
24 would hook up to that discharge outlet to our pumps, the pump
25 that was designated for the perc tank. And you would suck off

1 that trailer into the perc tank, or you could also pump
2 directly right into drums. And then you would unhook from
3 that truck, and the truck would go scale so we knew exactly
4 how much product we were getting.

5 Q "Did you ever see any perc spilled during that process of
6 unhooking from the truck?

7 A "Yes. Several times. There was a few drops or some
8 ounces. We always tried to put -- we called them spill
9 buckets, but it was just a bucket or half of a bucket that we
10 cut off underneath our connection so we would catch any spill
11 if there were some ounces or drops that dripped.

12 Q "Did you always catch everything in those buckets?

13 A "No. There was times when some drops would hit the
14 cement.

15 Q "Was there ever times when it was more than just drops
16 that hit the cement?

17 A "The most I would ever say it would be would be a quart.

18 Q "And how often would that happen, a few drops or a quart?

19 A "Very seldom. Once every few semi loads.

20 Q "And how often did you get semi loads?

21 A "I'd say three a summer, three a season. No, that's not
22 a fair statement. I'd say four to five a year. That's a
23 rough estimate.

24 Q "Did you ever have perc spillage associated with
25 disconnecting the hose from your designated perc pump?

1 A "Yes. Here again, there would be the few ounces or
2 drops, yes.

3 Q "Would you ever spill a quart there?

4 A "Yes, quantities as much as a quart, but, boy, by that
5 time, you had everything shut down so there would never be
6 quantities more than that.

7 Q "And how often might that occur?

8 A "Probably that same interval. Once every three, four
9 loads.

10 "Again, here, you tried to keep one of those drip buckets
11 or spill buckets underneath so you could catch it.

12 Q "But you didn't catch it all?

13 A "No, no.

14 Q "Do you ever remember -- what did perc do to asphalt?

15 A "Over a long period of time, it would deteriorate it.

16 Q "Did you ever remember seeing that process?

17 A "No, because like I say, perc evaporated so fast that if
18 you spilled a cup onto the asphalt, especially, you know, on a
19 moderate temperature day, say 65 and above, it would evaporate
20 before it could do that deterioration.

21 Q "How do you know that perc deteriorates asphalt?

22 A "Over time, over time in this area where this used to be
23 asphalt.

24 Q "And you're indicating Area 5?

25 A "Area No. 5. You could see deterioration of the asphalt,

1 and that was not just from the perc; that was just over time.
2 Anything that might have dripped onto there and forklifts
3 running over it and so on and so forth, so that's when they
4 decided they better put cement there.

5 Q "Do you remember any conversation surrounding that
6 decision?

7 A "All I remember is them talking about, 'Yes, we're
8 probably going to put cement in there.' That was all
9 conversed above me at the time; I mean, people of higher
10 authority level than me.

11 Q "But was it because of the deterioration in the asphalt?

12 A "It was because it was starting to deteriorate and they
13 didn't ever want to get -- I mean, they just knew that by
14 putting cement there, it was going to be safer in the long run
15 if there was ever a major spill.

16 Q "What did it look like?

17 A "Pavement on the street.

18 Q "Did you observe the deterioration with your own eyes?

19 A "Yes. I would say, you know, over the five years I was
20 there that it was pavement. You know, in that period of time,
21 you could see places where it might start getting roughed up,
22 and you could see a few of the stones starting to poke up, you
23 know, that type of thing, but I never did see a -- you know,
24 to where it was any worse than that.

25 Q "Did you believe some of that was due to perc?

1 A "I would say a combination of all of the products, not
2 just perc.

3 Q "So it was common for other product to hit that asphalt,
4 too?

5 A "Yes.

6 Q "What other kinds of product?

7 A "Methanol, isopropyl alcohol.

8 Q "Would isopropyl alcohol hurt asphalt?

9 A "Not to the extent maybe that perc would. Over time it
10 probably would, if it was able to stay there over time.

11 Q "How about TCE? Did that ever hit the asphalt?

12 A "I'm assuming, yes, drops, not like perc because we
13 didn't handle it near as much, but --

14 Q "How about carbon tetrachloride?

15 A "Yes. A few times, yes, in ounces or drops, yes.

16 Q "How about xylene or toluene?

17 A "Yes.

18 Q "Do you recall times when that spilled on the asphalt?

19 A "Yes.

20 Q "How often might that happen?

21 A "You would get a couple of drops every truckload that you
22 unloaded. Here again, you'd maybe get that cup to a pint
23 every three, four semiloads.

24 Q "Did you have a similar situation with the place where
25 the xylene or toluene hose tied into your tanks, where, every

1 three or four times, you'd spill as much as a quart?

2 A "Yes.

3 Q "And did that stuff get cleaned up immediately?

4 A "Well, it was -- that's a product that was like the perc.
5 What didn't evaporate real fast, yes, got wiped up, or, you
6 know, you would try and catch -- if you caught some in a
7 bucket, you would tend to let that bucket sit out, and it
8 would evaporate out of there.

9 Q "Did that stuff ever get washed off of that area with a
10 hose?

11 A "Yes, there was in some cases, yes. Washed down, and
12 then it would get into --

13 Q "Get into what?

14 A "Get into Area No. 6.

15 Q "Did you ever see perc come in on a train car?

16 A "I don't remember us ever bringing in a railcar of perc.
17 I'm not saying it didn't happen, but I don't recall railcars
18 of it. We just didn't handle that kind of quantities.

19 Q "Did you ever drum perc directly off semis?

20 A "Yes.

21 Q "Tell me about that. How did that happen?

22 A "Here again, we go through the same process of the semi
23 backing down into Area 5. You would hook up to the outlet of
24 that truck, and instead of going directly into the tank, into
25 the bulk tank, you would go directly into the drums that were

1 set on the scale.

2 Q "Was it the same sort of connection?

3 A "Yes, it was.

4 Q "So if that connection leaked every third or fourth time
5 that it was connected to the perc tank, did it also leak every
6 third or fourth time that it was connected to the drums?

7 A "It would, yes, because it -- like I say, that discharge,
8 you would catch your drippings, and you would get a few drops
9 on the ground, yes.

10 Q "Did you ever get more than a few drops on the ground?

11 A "You could get as much as a cup to a pint, yes.

12 Q "How often might that happen?

13 A "Here again, once every three to four semiloads.

14 Q "How often would it happen when you were drumming perc?

15 A "Well, I'd call it -- you know, if one semiload come in
16 that we were drumming, and the next three come in that we were
17 putting directly into the bulk tank, it would have happened
18 one out of those three or four times that we'd get that kind
19 of quantity on the ground. Really we didn't ever really drip
20 any more when we were drumming than we would when we were
21 unloading into the bulk tank. You know, it was a fairly
22 simple process.

23 Q "Maybe I'm misunderstanding a little bit. You connect up
24 to each. When you're drumming perc, you connect to each drum
25 the same way that you would connect to the tank, right?

1 A "Okay. Very good question. No. When you would connect
2 to a drum, what you had is, on top of the drums, there's a
3 2-inch, I'm going to call it, a bung opening in the drum. And
4 off of that truck, it would go through the pump and into a
5 hose and into a valve, and the same valve that we used to fill
6 the perc shuttle or skid. And with that valve, you would put
7 it inside the drum. You'd set your -- you'd zero your scale.
8 You would fill the drum to a certain weight. You'd shut your
9 valve off. You'd lift it up. You'd let the drippings go into
10 the drum. You'd move on to the next drum. Fill that drum to
11 a certain weight, and you would do that process with the first
12 four drums. You would set your hose aside, take away those
13 drums, bring in the next four empty ones, and redo the process
14 again.

15 Q "What pump did you use to do that?

16 A "We had our pumps rigged up like the perc pump could be
17 rigged up to -- when you hooked up that pump from the semi to
18 the pump, you could either go into the drumming room or into
19 the bulk tank, so we would use the same perc pump over and
20 over.

21 Q "When you first started there, what hose did you use to
22 connect the semi to the perc pump?

23 A "Well, there was several hoses that we would use. When I
24 first started, there was not one designated hose. Again, like
25 I say, when we put in this Rack No. 19, we started designating

1 hoses for every product, so we never intermingled.

2 Q "Was that part of the increased safety awareness?

3 A "Yes.

4 Q "When you first started there and you had several hoses
5 that you used to move perc, did you clean that hose out after
6 you were done with it?

7 A "For the most part, you would drain that hose into the
8 spill bucket, what little was left in it, and then you
9 could -- we -- once in a while, if you were going to use it
10 for -- you would use it for like products, like toluene,
11 xylene, perchloroethylene, TCE. You would tend to use the
12 same hose for all those products before we started designating
13 a separate hose for each one of those products.

14 Q "So if somebody came on in the warehouse after you, was
15 there a way for them to know how one of those hoses had been
16 used last?

17 A "No.

18 Q "So if I follow you in the warehouse, how do I know if
19 you used the hose last for acid or for a chlorinated solvent?

20 A "We would keep the chlorinated solvent hoses separate
21 from the acid hoses, but, here again, we would use the same
22 hose for several chlorinated solvent hoses.

23 Q "So did you ever clean those hoses out?

24 A "Yes. They'd be rinsed when they were empty, yes. Once
25 in a while. Not on a routine, no. A lot of times they

1 were -- you know, you'd couple the hose together to make a
2 ring, and then you'd set it under -- you know, next to the, to
3 the area to the drumming shed, No. 4, and then use it for the
4 next chlorinated solvent that came in.

5 Q "So did they just get it rinsed into the drain, No. 7,
6 when you rinsed them?

7 A "Yes.

8 Q "Tell me how you'd rinse them.

9 A Well, if you needed to rinse that hose with something, we
10 had a well down here by the drumming shed, No. 4, and
11 basically with the garden hose, you would stick the garden
12 hose in one end of the hose. You'd just rinse a little water
13 through that hose. You know, you'd run anywhere from a gallon
14 to 5 gallons through that hose. That would drain into this
15 No. 7 drain area, or drain channel, and then you'd shut your
16 water off. You'd put your hose away, and that runoff would be
17 down in here, and that chlorinated solvent, again, was very --
18 would evaporate.

19 Q "So the chlorinated solvent that came out of the hose
20 would run into Pit No. 6?

21 A "If it was going into this grate, No. 7, yes, it would
22 run into this pit, No. 6."

23 Q "Okay. Was the drumming of trichloroethylene handled the
24 same way as perc?

25 A "Yes.

1 Q "So if a truck would come in with TCE on it, then you
2 would drum it the same way you did perc?

3 A "Yes. A lot of times the truck that came in, since we
4 handled such small volumes of these products, we might bring a
5 truck in that was half perc and half TCE because they would
6 come from the same place.

7 Q "And offloading was the exact same process?

8 A "The exact same process, yes.

9 Q "And the incidence of spilling was about the same?

10 A "About the same, yes.

11 Q "How did xylene and toluene come in?

12 A "Now xylene and toluene would come in trucks the same
13 way; here again, the same process. We didn't drum those
14 products probably as much as we drummed perc and TCE because
15 their bulk tanks were bigger. So most of the time we could
16 just fill the bulk tank and drum out the bulk tanks, and I
17 think toluene and xylene also came in railcars.

18 Q "Were the incidents of spills about the same when you
19 were offloading xylene and toluene from semis?

20 A "Yes.

21 Q "And did you use the same three or four undesignated
22 hoses for those chemicals that you used for perc?

23 A "Yes.

24 Q "Tell me once more when the designated hose policy went
25 into effect.

1 A "I worked for the company roughly eight years, and I
2 believe it came into effect about the time that HCI bought out
3 Dyce, which I want to say was in my last three or four years
4 of service. So halfway through my --"

5 Q "Did you ever see any major spills while you were working
6 at Dyce?

7 A "What would you consider major?

8 Q "500 gallons.

9 A "The only product -- yes, I did. This tank right here.
10 These are caustic soda tanks. I've seen these overrun while
11 they were being unloaded. There's a hole, you know, a small
12 hole in the top of these tanks, and I've seen them run over
13 probably in a quantity of that much.

14 Q "How did that --

15 A "Not much over that, but -- pardon me. Ask that question
16 again.

17 Q "How did that happen?

18 A "Well, we'd be unloading from a railcar into these tanks,
19 and the person monitoring that unloading process -- it would
20 be a very long process. Maybe he didn't get back to the tank
21 when he should have, and it would be running over when he'd be
22 coming back. So then there would be product running into, you
23 know, into this contained area down into the pit.

24 Q "Did that happen more than once?

25 A "Yes.

1 Q "Do you recall how many times it happened during the time
2 you worked at Dyce?

3 A "Six.

4 Q "Six major spills?

5 A "Six times, not at that quantity, but anywhere from 20 to
6 200 gallons.

7 Q "And those were all the result of somebody just not
8 watching it closely enough?

9 A "Yes."

10 Q "Do you ever recall a formic acid leak due to a tank
11 valve failure?

12 A "Yes, I do.

13 Q "Tell me about that.

14 A "That happened shortly after I started. That was while
15 Marvin Johnson was working there. Like I say, I was a
16 brand-new employee, and we had a tank that was sitting right
17 here, I believe, at the time. And I was helping Marvin
18 Johnson -- I was new -- unload formic acid into that tank.
19 And the valve that was on the bottom of the tank was made of
20 the wrong material, you know. It was a poly-type material but
21 apparently wasn't quite right. It melted away, or the
22 chemical had a reaction with that valve to where it started
23 leaking out the bottom of the tank.

24 "We managed to -- I believe, I believe how we got it
25 stopped is we threw some rags into the tank, and Marvin got on

1 top of the tank with a big, long piece of poly pipe and got
2 those rags shoved down into that valve, and we got the leak
3 stopped. And then we pumped that product out of that tank
4 back into the truck that we were unloading at the time. Got
5 the tank cleaned out and the right fittings put wherever and
6 went from there. Yes, I recall that spill.

7 Q "Was that a pretty big spill?

8 A "I guess I would consider it big. It was probably a
9 couple hundred gallons.

10 Q "Did you ever fill out any paperwork on that spill?

11 A "Boy, you know, I don't remember me, myself, filling it
12 out. That was when I first started, so it's been a long time.
13 I don't recall.

14 Q "Do you recall if anybody filled out any paperwork?

15 A "I don't know.

16 Q "Was that the wrong kind of valve to use on that kind of
17 acid?

18 A "One of the things I don't remember, if it was the valve
19 or if it was like the elbow coming out of the tank or what it
20 was, but one of those fittings was the wrong type of product.

21 Q "What happened to that? Are you talking about the nylon
22 fitting?

23 A "Yes.

24 Q "What happened to that fitting?

25 A "After the -- during the -- well, it had a -- well, it

1 had a -- the chemical was down in that fitting, of course,
2 because it was before the valve. It was between the tank and
3 the valve, and it just ate away at that fitting. It's like it
4 made it soft or something, and it just, like a sponge, it just
5 collapsed, and chemical started leaking out of the fitting.

6 Q "Did it melt it?

7 A "Yeah, it's like it melted it, yes.

8 Q "Could there have been any significant spills at Dyce
9 during the time you were working there without your knowing
10 about it, any spill over 25 gallons?

11 A "Without me knowing about it?"

12 Q "What about if a spill occurred while someone else was
13 moving chemical during a normal weekday?

14 A "No, then everybody would know about it.

15 Q "And how would that happen, that everyone would know?

16 A "Well, that person and, you know, the truck driver who
17 was in the truck that was being unloaded or whatever would be
18 handling that product, or there -- you know, we had four or
19 five of us working in the general area, and we would know if a
20 spill was going on, especially of that size. Everybody would
21 tell each other. We would have break, you know, a couple
22 times a day and lunch during the day, and we'd talk about what
23 was happening before that time. I think, for the most part,
24 we all knew about anything that would happen.

25 Q "How big would a spill need to be for everyone to hear

1 about it?

2 A "I guess it would depend on the product, you know.

3 Caustic soda, 5 gallons, I don't know that everybody would
4 have heard about it. Perchloroethylene, 5 gallons or above,
5 we all would have known about it.

6 Q "What about a gallon?

7 A "No, I don't -- not necessarily. We wouldn't
8 necessarily -- the guy, if there was one guy handling it and
9 he didn't want to tell anybody, we wouldn't have known. One
10 gallon, we would never have notice on scale tickets as far as
11 being short 1 gallon.

12 Q "How about 2 1/2 gallons?

13 A "No, that could probably happen.

14 Q "That wouldn't necessarily show up on your -- would you
15 expect that to show up on your inventory?

16 A "Probably not 2 1/2 gallons. If you started getting much
17 higher than that, we would."

18 Q "Were there some criteria somewhere about which spills
19 got reports and which didn't?

20 A "I would say if it was the -- yes, there is. If it was a
21 reportable quantity of -- there's a reportable quantity of all
22 the products that we handled, and that reportable quantity
23 meant that, yes, you had to have a report filled out for the
24 state. And if it met that reportable quantity, I believe we
25 filled one out each time.

1 Q "And did you know what those reportable quantities were?

2 A "I don't know them off memory, but I had access to a form
3 that would tell that.

4 Q "Did you check that form every time you had a spill on a
5 tank farm?

6 A "Myself, no. I would tell Mr. Diede, and he would look
7 at it all, I know."

8 Q "Tell me about inventorying the tank farm. How did you
9 keep track of it?

10 A "Whenever we would fill drums, I would do what was called
11 a receiving report. And that basically told the quantity of
12 product we'd put into those drums, and that went into the
13 office. And they would deduct it off the inventory in the
14 computer and their paperwork.

15 "Well, then when we would do inventory, we would measure
16 the amount of product, the height of product in a bulk tank,
17 and we had charts that showed how much that tank would hold
18 per inch, and then they would -- you know, like I would say
19 there was 71 inches of xylene, and then they went into the
20 office and they would either say, 'Well, we're short a little
21 bit' or 'long a little bit,' or we wouldn't -- 'Yeah, that's
22 about what we got,' so --

23 Q "Was it pretty common to have some sort of discrepancy?

24 A "It was always a little bit one way or another because
25 you'd never come out exact on your scale tickets and your

1 level in the tank, especially with products -- well, most of
2 the products would fluctuate in height a little bit between
3 like winter and summer. When it was warmer, they took up a
4 little bit more space than they would in the summer. So it
5 was never exact.

6 Q "How much discrepancy was common in terms of volume?

7 A "Oh, boy. I think it would depend on the product.

8 Products that didn't move very much of, you know, it would be
9 a very small discrepancy. Gallons, a few gallons.

10 Q "Let's talk about perc, for example.

11 A "Okay. Perc would be a product that would be a
12 discrepancy of gallons, you know, because just a few gallons
13 one way or another. A product like, say, caustic acid, you
14 know, it could be a higher volume just because we went through
15 so much of the product."

16 Q "What other kind of documentation did Dyce keep?

17 A "Well, as far as -- I don't know, when it comes to office
18 documentation, what all they kept because I never worked up in
19 the office. But from a warehouse point, it was mainly old
20 accounts payable and receivable statements and my receiving
21 reports were the bulk of the things that I kept. I just -- I
22 couldn't say what all was kept down in the front office.

23 Q "And your receiving reports, were those reports that you
24 filled out when a truck came in and gave you --

25 A "Yes. When a truck came in and left us product or when

1 we made drums, when we did repackaging of certain products out
2 of bulk tanks, there was always a receiving report made.

3 Q "How many of those would you fill out in an average year
4 for perc of receiving reports?

5 A "One every time we got a truckload in and every time we
6 did drums, so I'm -- 25 a year.

7 Q "You got 25 loads of perc a year?

8 A "No, because we'd do it when we'd drum product off, too,
9 so we probably got five loads of perc per year, but the other
10 20 were each time we made drums of perc.

11 Q "Now would you do a receiving report when you'd drum
12 perc?

13 A "It was written up on a receiving report that we took
14 400 gallons of perc or so many pounds of perc out of the bulk
15 and put it into drums, and that was sent into the office on a
16 receiving report.

17 Q "So you did drumming probably 20 times a year with perc?

18 A "On the high end, yes.

19 Q "Were those receiving reports marked differently, the
20 ones that you filled out when perc came in and the ones that
21 you filled out when you just drummed?

22 A "Well, the only thing, the one that came in when a semi
23 came in would have had paperwork from the truckload attached
24 to, whereas one where I just made drums wouldn't have any
25 other paperwork attached to it. It would just be a written

1 statement on, you know, we made eight drums of
2 perchloroethylene, and into the office it would go. And then
3 there was -- I, of course, always kept a carbon copy of that.

4 Q "Where did your carbon copies go?

5 A "In a file upstairs in a box.

6 Q "And where did the office copies go?

7 A "I don't know.

8 Q "So if a person were to look at all those receiving
9 reports for a given year for perc, they'd be able to tell how
10 many perc shipments you got in and how many times you drummed
11 perc out of your tank into drums?

12 A "Yes."

13 Q "Do you ever recall any problems with consistently low
14 inventory in the perc tank?

15 A "No."

16 Q "During the first four years that you were there, did
17 Dyce do a lot of maintenance on its hoses and valves?

18 A "Oh, yeah. I mean, new, I mean, new ends were put on
19 hoses if they were leaking or busted. I mean, as soon as it
20 happened that if a valve was leaking, we'd put new valves in,
21 or if a pump wasn't working, it was fixed right away.

22 Q "Did you ever have any spills related to faulty hoses or
23 valves?

24 A "Well, that formic acid one was, I guess. You could
25 consider that a fault of the plumbing somehow. I guess I

1 don't recall any other spills particularly faulting the pumps
2 or --

3 Q "Do you remember any leaky hoses?

4 A "Well, I remember if a hose started leaking -- just say,
5 for instance, if we were unloading methanol and a hose started
6 leaking, you know, the first thing that was done was you
7 uncoupled, and you replaced a gasket inside that. If that
8 didn't solve the problem, then you would go have the
9 maintenance man fix your end, and you would start up again and
10 go from there.

11 Q "Did you ever see a hose with a pinhole leak in the hose
12 itself?

13 A "I guess I don't recall seeing one. I'm not saying it
14 never did happen, but, I mean, we were -- Dick was always real
15 good. If we took him a hose that had a leak in it, he'd fix
16 it for us right away. I mean, I don't recall one having a
17 leak that -- for a long period.

18 Q "Did you ever recall taking a hose to him to have it
19 fixed?

20 A "Yes.

21 Q "How common was that?

22 A "Oh, I suppose three times a year.

23 Q "And was that generally for something like a pinhole
24 leak?

25 A "It was generally for -- if one of the ends was leaking

1 or busted. It wasn't that often that we would get a pinhole
2 leak. We used pretty darned good hose -- I mean, it was very
3 expensive stuff -- to handle the chemicals. So it normally
4 wasn't the fault of the hose. It was one of the end
5 connections.

6 Q "Did you ever have losses that you thought should have
7 been replaced -- did you ever have hoses that you thought
8 should have been replaced that Dick or Dyce decided to just
9 repair and keep using it?

10 A "No.

11 Q "Did you always feel like you had enough different pieces
12 of equipment to use? Like did you always have enough valve
13 ends for hoses?

14 A "Yeah. I don't remember wanting something that we would
15 never get. You know, if there was a need for an additional
16 valve end, we got it.

17 Q "And how did you get it?

18 A "We'd go ask Dick to make us up one, or we'd make up one
19 ourselves. We'd just do it. They were really good that way.
20 If we needed plumbing fittings, they gave them to us."

21 Q "What kind of safety training did you get when you were
22 hired on there?

23 A "Well, like I say, we learned how to handle the half mask
24 respirators and the self-contained breathing apparatuses and
25 so on and so forth. Some forklift training. You know, if you

1 were a truck driver, you probably got some DOT training.

2 That's what I recall.

3 Q "Did you have safety meetings during the first four years
4 when you were there?

5 A "Yes.

6 Q "How often were they?

7 A "Once a quarter. Maybe a little more often, but that I
8 think was probably -- it was at least that often. I don't
9 recall the exact interval. We got to where we were having
10 them more often than that. We were having at least one a
11 month.

12 Q "And that was closer to the time when you left?

13 A "Yeah.

14 Q "And did you do -- what did you do at those meetings?

15 A "Well, we would talk about maybe specific, specific
16 instances that had come up with unloading a truck or specific
17 instances that maybe we wanted to talk about some of our
18 unloading procedures, or we would get suggestions from
19 employees if they had any concerns. That was, you know, a
20 specific time that they could bring up anything they wanted,
21 and we would talk about it, or we could talk about
22 different -- a new chemical that we were going to start
23 handling, or maybe we wanted to talk some first-aid on an
24 existing chemical that we had been handling.

25 Q "Some first-aid?

1 A "Yeah, you know, for instance, if there was a spill, we'd
2 talk about what to do in that situation, if somebody got it on
3 themselves or something like that."

4 Q "And you were told that you couldn't tell if perc was in
5 a liquid by testing the pH? Is that what I heard you say?

6 A "Well, we knew that wasn't a pH-sensitive product like
7 acids and bases; that, you know, you could neutralize it and
8 it would be a benign product for the most part. Perc was not
9 that way, and we all knew that.

10 Q "So if you've got a liquid that was a pH of 7, it doesn't
11 mean it's safe if it has perc in it.

12 A "That's right. I mean, if it's a pH of 7, if we know
13 it's an acid or base without anything else in it, you know
14 it's a -- once the pH is brought to neutral, it's a relatively
15 safe product. But if there's one of these chlorinated
16 solvents in it, or even a glycol-based product in it, then,
17 you know, it wasn't safe then. It wasn't just something that
18 you could --

19 Q "What testing was done of the liquids that accumulated in
20 the pit, No. 6, before they were released out to the other
21 ponds?

22 A "There was pH testing done and -- mostly just pH testing.

23 Q "So if there was perc in that liquid, the pH testing
24 wouldn't have told you it was safe?

25 A "No."

1 Q "This portion of the pit on the north side, the pit
2 labeled No. 6, the portion of that pit that drained the perc
3 tank and the other chlorinated solvents tank, the easternmost
4 portion of that pit, what percentage of the time did it have
5 standing liquid in it?

6 A "I'd say 60 to 70 percent."

7 Q (By counsel for Dyce Chemical) "I just want to clarify a
8 couple things in my mind, Ken.

9 "Approximately how many loads of perc would have been
10 received by Dyce Chemical while you were employed there per
11 year, if you know?

12 A "On the average, between two and four a year; four on the
13 high end, two on the low end."

14 Q "Did you ever see any spills of perc in sufficient
15 quantity whereby it would reach that pit in No. 6 before being
16 evaporated?

17 A "No."

18 Q (By counsel for Weiss plaintiffs) "I have one or two
19 followup questions in response to Mr. Cromley's questions.
20 Did you ever see spills of chlorinated solvents near that --
21 near the drain that you've marked No. 7 that were cleaned off
22 by hosing?

23 A "Yes."

24 Q "So if chlorinated solvents mixed with that water that
25 was hosed to clean it off, it would have gotten into the

1 drain?

2 A "Yes.

3 Q "And it would have gone down to those pits?

4 A "If it was mixed -- if it was mixed it water, yes."

5 Q "How many of the spills of chlorinated solvents that you
6 saw were cleaned up that way?

7 A "Of spills that actually happened with chlorinated
8 solvent, a small percentage was actually rinsed down with
9 water, because, like I say, they were ounces and cup-sized
10 spills, and they were evaporated before we had to rinse them
11 down. I guess, of spills over my eight years of working with
12 the company, I don't know if I can put a figure on it.

13 Q "What percentage of spills were --

14 A "Between 10 and 20 percent, 20 on the high end."

15 Q (By counsel for Dyce Chemical) "I have one more
16 question. On that same subject, then, and I don't know how
17 well you're able to quantify it, but you've indicated before
18 that, and I don't want to characterize your testimony, but I
19 think you've indicated that the spills of chlorinated solvents
20 are generally in small quantities; is that correct?

21 A "That's correct.

22 Q "And that generally you did not see sufficient spills in
23 the area where the chlorinated solvents can reach the pit, but
24 that in a certain percentage, they would perhaps have been
25 washed down. Would it be your estimate that over a year

1 period, there might be less than 1 quart of perc that would
2 reach Pit 16?

3 A "Yeah, that's fair. Yes, that's correct.

4 Q "And would that be true during the eight years or so that
5 you worked at Dyce Chemical?

6 A "Yes."

7 MR. MICKELSON: That's it.

8 MR. LYNCH: Your Honor, if I could just make a quick
9 record, Exhibit 4143, just so there's no confusion, it looks
10 like it's oriented so that north is to the left side of the
11 screen. I just wanted to point that out since most of the
12 photos have north on the top of the screen.

13 THE COURT: Okay. And I need to take a quick break.

14 THE LAW CLERK: All rise.

15 (Recess taken from 14:29:32 to 14:42:36.)

16 (Open court.)

17 (Jury present.)

18 THE COURT: Please be seated.

19 Call your next witness.

20 MR. JOHNSON: Your Honor, our next witness is
21 Kristen Stout.

22 WHEREUPON,

23 MS. KRISTEN KOHLER STOUT,
24 called for examination by counsel for plaintiffs, after having
25 been first duly sworn to testify the truth, the whole truth,

1 and nothing but the truth, testified as follows:

2 DIRECT EXAMINATION

3 BY MR. JOHNSON:

4 Q Ms. Stout, could you state your full name for the record,
5 please?

6 A It's Kristen Kohler Stout.

7 Q And, Ms. Stout, how are you employed?

8 A I am the executive vice-president of Environmental
9 Research, Inc.

10 Q And how long have you been the executive vice-president
11 of Environmental Research, Inc.?

12 A Since 1993. I was one of the cofounders of the company.

13 Q Okay. And where is your company located?

14 A Our office is located in Linden, Virginia. It's a real
15 small little town about 70 miles west of Washington, D.C.

16 Q If I can, for short, can I just call it ERI?

17 A Yes, please do.

18 Q And what business is ERI in?

19 A We specialize -- we're an environmental consulting firm,
20 and, among other things, we specialize in the analysis of
21 aerial photography and aerial imagery to conduct environmental
22 investigations and for natural resource mapping, wetland
23 mapping, those types of things.

24 Q And what generally do you do for natural resource
25 mapping? What does that entail?

1 A The majority of the projects that we do have to deal with
2 mapping wetlands, either mapping jurisdictional wetlands for a
3 state department of natural resources or one of our -- the
4 other -- one of my colleagues is a wetlands specialist, and he
5 does expert witness work on issues that deal with wetland
6 delineation.

7 Q All right. And the other thing I think you mentioned is
8 that your company does environmental investigations.
9 Obviously we've got an environmental-type case going on here.
10 You've seen -- you've been through, sitting here throughout
11 the trial, correct?

12 A Yes.

13 Q And you've seen a number of historical photographs in
14 this case. I presume that those are the types of historical
15 photographs that you review when you do environmental
16 investigations?

17 A Oh, definitely. Most of the work that we do, whether
18 we're doing it for private industry or in support of
19 litigation or for the EPA or for the Department of Justice or
20 for various military installations, it always involves using
21 historical aerial photography, just a series of photographs
22 that span the time period when the site or the installation
23 was active.

24 Q Okay. Do you have a profession?

25 A I consider myself an environmental imagery analyst.

1 Q And what do you do as, what do you do as an environmental
2 imagery analyst?

3 A Well, my work entails analysis -- stereoscopic analysis
4 of aerial imagery, current and historical photographs combined
5 with other types of map data, spatial data, to investigate and
6 to do forensic-type investigations, environmental
7 forensic-type investigations.

8 Q We'll come back to that. Let me ask you a couple more
9 things about your background.

10 Where did you go to college?

11 A I attended the University of Virginia in Charlottesville.

12 Q And did you receive a degree there?

13 A Yes. I received a bachelor's degree in environmental
14 science back in 1974.

15 Q And where were you first employed as an environmental
16 imagery analyst?

17 A My first position was with Trident Engineering
18 Associates, and they had a contract with EPA's environmental
19 photographic interpretation center to -- and their contract
20 was to provide staff to the EPIC facility. We called it EPIC.

21 Q "EPIC" stands for what again?

22 A It's the Environmental Photographic Interpretation
23 Center.

24 Q Okay.

25 A It's EPA's field office.

1 Q E-P-I-C is EPIC?

2 A Right.

3 Q Where was EPIC when you worked there?

4 A EPIC was located in -- outside of Warrenton, Virginia.

5 Q How long were you a dedicated contractor at EPIC?

6 A I worked there for 17 years under various contracts,
7 continuous contracts.

8 Q All right. What was EPIC's business or mission?

9 A Well, when I started there, the main focus was on
10 developing applications of how to -- of using aerial
11 photography and aerial imagery, remote sensing, to support
12 EPA's emerging programs, and as we began to develop these
13 applications and support the regions and EPA headquarters,
14 became more and more providing operational support; for
15 instance, doing photo analysis for the Superfund program and
16 the RCRA program for the EPA regions.

17 Q Okay. Can you tell us just generally what you did during
18 the 17 years you were a dedicated contractor at EPIC?

19 A Well, I held a number of managerial and technical
20 positions. Probably the most relevant to my work today is as
21 an imagery analyst, developing the application of using
22 historical photography for assessing and investigating
23 hazardous waste sites, and these would be RCRA sites or
24 Superfund sites.

25 Q When did that work start?

1 A I started that in, that work, in the late '70s.

2 Q Had EPIC been doing that type of work before you got
3 there?

4 A No.

5 Q What was your role in developing that type of work?

6 A Well, we had been working with EPA using current
7 photography with headquarters and various regional offices,
8 and EPA was conducting an investigation about an alleged
9 disposal area in Region 4, and I was, I was tasked to analyze,
10 to acquire and analyze historical photography. This was a
11 very high-profile investigation that resulted in a
12 congressional hearing.

13 Q And did you play a role in developing the work with
14 regard to the review and analysis of historical photography
15 over time while you were at EPIC?

16 A Oh, yes, yes. I was responsible for that and trained
17 other imagery analysts that were on my staff and then
18 developed guidelines for our -- and procedures and guidelines
19 to produce photo analysis reports.

20 Q In connection with your work, of what benefit was it to
21 you to be reviewing historical photography?

22 A Well, it was extremely valuable for the investigation of
23 industrial sites or hazardous waste sites that had been
24 operating for decades. As EPA was starting their programs to
25 investigate and then, later, to remediate these hazardous

1 waste sites, the sites often will change and don't appear
2 anything like they used to when the activities were going on.
3 There were a lot of abandoned sites as well.

4 So by looking at historical photographs, you can
5 essentially go back in time and see what the site or the area
6 looked like and study it and track changes over time and how
7 various features on the site changed, any evidence of
8 disposal, where there were dumps or impoundments that were no
9 longer evident, historical drainage patterns, any evidence,
10 visual evidence of like liquid releases from spills or
11 drainage. All that type of information was very valuable to
12 the field crews that were going out to the sites, the
13 Superfund sites and RCRA sites and taking samples and
14 designing their sampling program.

15 Q Okay. And what year did you leave EPIC?

16 A I left EPIC in 1993.

17 Q And why did you leave EPIC?

18 A Well, the contract I was on ended, and EPA was planning
19 to transition from having an onsite staff of contractors to
20 start contracting for their operational support with companies
21 who had their own facility and their own equipment, and, like
22 I said, three of my other colleagues from the EPIC contract,
23 we went and started our own company.

24 Q And that was in what year?

25 A 1993.

1 Q And what -- who were your clients when you started up in
2 your business, generally?

3 A Well, we did some work for the Department of Justice and
4 the Army environmental center. And then we got involved in
5 working for law firms in supporting environmental litigation.
6 We also became -- after a couple years, we were also back on
7 that EPIC contractor as a subcontractor to Lockheed Martin.
8 So we continued -- we've been doing that for almost 15 years
9 now. We've continued to do work for EPA.

10 Q All right. Let me ask you a couple of other things about
11 your background.

12 While you were at EPIC, did you publish any reports
13 involving photographic imagery analysis?

14 A Well, certainly our -- my role as contractor was to
15 generate reports, like photo analysis reports of different,
16 different sites, but I also did -- wrote a few papers and
17 presented papers on using historical photography for various
18 purposes.

19 Q All right. And since joining ERI, have you published any
20 reports or articles?

21 A I have made presentations at various conferences where
22 the papers were incorporated into the procedures. I spoke a
23 number of times at the American Academy of Forensic Science on
24 using historical photography and aerial photography for
25 forensic investigations at environmentally contaminated sites.

1 Q Have you trained others in connection with regard to
2 evaluating historical photography?

3 A Well, certainly as my -- one of the roles I had while I
4 was working as a contractor to EPIC was to train other people
5 on my staff, other photo analysts. I also was involved with
6 making presentations at workshops. The Environmental Law
7 Institute had a workshop where they would go around to the
8 regional offices in each of the ten EPA regions and put on a
9 workshop for site managers, like RCRA site managers, and I
10 participated in that, just giving a presentation to the group
11 on how they could use remote sensing to support their RCRA
12 programs.

13 Q All right. Let me turn quickly to your work in this
14 case.

15 Now you've been retained, have you not, as an expert
16 witness by the insurers in this case?

17 A Yes, I have.

18 Q Okay. And I presume your company is charging for your
19 services?

20 A Yes.

21 Q And how much does your company charge for your services
22 in this case?

23 A For time testifying, the company charges \$200 an hour.
24 For other time, working on reports and conducting the
25 analysis, for my time it's billed out at \$175 an hour.

1 Q All right. Is that your company's standard rates?

2 A Yes, that's a standard rate for our litigation support.

3 Q All right. Now you're an expert witness in this case.

4 Have you worked as an expert witness in other cases?

5 A I have, yes.

6 Q About how many?

7 A I don't know an exact number, because several -- many of
8 the cases I work on involve more than one site, so I would say
9 several dozen cases. At least several dozen cases.

10 Q All right. And you said that some of your cases involve
11 more than one site. About how many sites, contaminated sites,
12 have you reviewed in connection with your work as an expert
13 witness?

14 A I'd say at least a hundred.

15 Q All right. And who generally has retained you in those
16 cases that you just told us about?

17 A Well, the cases, most of the cases involve
18 environmentally contaminated sites or ground -- where there's
19 been groundwater or soil contamination, and they really fall
20 into two categories:

21 One category would be insurance litigation, where there
22 is litigation between the policyholders and the insurance
23 company, and I have worked on many of those cases.

24 And then the other category would be what I call PRP
25 cases. Potential responsible parties are involved where you

1 would have entities or companies who either operated or owned
2 these sites, like Superfund sites or RCRA sites, at different
3 time periods, and then the litigation is trying to determine
4 who is responsible for what in allocating the cost of cleanup
5 at these sites.

6 Q Can you tell us just very briefly why this historical
7 photography exists, where it comes from?

8 A Well -- yes. Many government agencies, federal and state
9 agencies, have been obtaining and having flying -- contracting
10 out for overflights of large areas, regions of the country to
11 support their mapping and their information they need for
12 their programs, such as most people are aware that USGS, U.S.
13 Geological Survey, and the Department of Agriculture have
14 large holdings of historical photography. Other agencies like
15 NOS and the Corps of Engineers -- let's see. There's some
16 military photography that's available through the national
17 archives. And various state agencies, generally the
18 department of transportation in a state, or, and/or natural
19 resources department would have aerial photography that
20 they've used in their programs. We've also acquired
21 photography from private companies, so over the years private
22 companies have flown photography and have retained their
23 archives.

24 Q Let me show you -- you've created a demonstrative
25 exhibit, 472.

1 Why don't you pull that up.

2 DOCUMENT TECHNICIAN: (Complied with request.)

3 BY MR. JOHNSON:

4 Q You mentioned earlier that you viewed the photography
5 that you've just testified to in stereo, and you've created
6 this demonstrative, I think, to help explain that for the
7 jury. Why don't you just tell us what this demonstrative
8 shows.

9 A Stereo viewing allows you to see the scene, see the
10 photograph in 3D, in three-dimensional perspective, and this
11 is just an illustrative example of -- the plane is flying
12 along. It's taking pictures of the ground. The yellow square
13 would be the footprint of the ground that one frame would
14 cover. As the plane moves forward, it will take another
15 photograph. And the red square is the footprint of the
16 ground. And as you notice, that there's overlap between the
17 two frames. Most or all mapping photography requires that
18 there be overlap between the frames, and the two frames make
19 up what we call a stereo pair. It's that overlap area that's
20 viewed with a stereoscope, and then that's the area that you
21 can see 3D.

22 MR. JOHNSON: All right. And let's -- let me show
23 473.

24 DOCUMENT TECHNICIAN: (Complied with request.)

25 ///

1 BY MR. JOHNSON:

2 Q All right. This is -- okay. This is a demonstrative you
3 brought with you today. Can you explain to us what this is?

4 A This is a photograph of one of our typical workstations,
5 our photo interpretation workstations. It's a Richards light
6 table with a Bausch & Lomb zoom stereoscope attached. As you
7 can see, the film positives the photographs, and as film
8 positives are oriented and viewed on the light table through
9 the zoom stereoscope, the stereoscope is similar to a
10 microscope in that it has eye pieces, and when you look
11 through it and you're looking at the photography, you can
12 magnify it, and you can zoom in up to 30 times or more
13 magnification.

14 But what's different about a stereoscope is that it has
15 these additional arms or rhomboids that have optics in them,
16 and when you look through the eye pieces, one eye will see
17 what's under one rhomboid, and you orient that over the one
18 frame, and the other eye sees what's under the other rhomboid,
19 and you orient that over the second frame. Once you get --
20 you're looking at the same area on both frames, but you're
21 looking at it from two slightly different perspectives because
22 as the plane is flying by, it's taking a photograph from one
23 perspective. It moves forward, and it's taking the photograph
24 and it sees that feature from a different perspective. What
25 your eyes see, they're slightly different images, slightly

1 different perspectives, but your mind fuses it together,
2 creating the 3D effect.

3 Q All right. And you mentioned film positives a second
4 ago. What are film positives?

5 A Film positives are -- it's just the photography. Most
6 people are familiar with a film negative; that, you know,
7 before we went to digital cameras, you would always get your
8 negatives back with your pictures. It was a film product, but
9 the negative would be a reverse of what you see visually.

10 With the film positive, it's like a film product like a
11 negative only what's bright or what's light, like a white
12 tank, would appear white. Something dark would appear,
13 actually appear dark on the photograph, so it's just a
14 positive image that's on a film, film base.

15 Q With regard to this light table and stereoscope work
16 station, I can't help but think this is like a very expensive
17 View-Master that I bought my kids when they were young. Does
18 it work the same way?

19 A Yes, basically. This is much better, though. Much more
20 expensive.

21 Q Much more expensive, I'm sure.

22 Exhibit 474, why don't you go there.

23 DOCUMENT TECHNICIAN: (Complied with request.)

24 BY MR. JOHNSON:

25 Q And here is another demonstrative you brought with you.

1 Can you tell us what this is?

2 A Yes. Some of the photography that's available today is
3 only available in digital format, and we can't view it with a
4 stereoscope on a light table. This is one of our on-screen
5 stereoscopic work stations where you view the two digital
6 images. Again, you have your stereo pair with overlap, and
7 they're viewed on a monitor using special software. We use a
8 software called Stereo Analyst.

9 You also need to use these stylish glasses here, these
10 flicker glasses that go with the work station, and what it
11 does is it allows your one eye to see one frame and the other
12 eye sees the other frame. It flickers back and forth really
13 fast and so, again, your mind fuses the image together and you
14 get the 3D perception. You can also zoom in and enlarge
15 specific areas and move around the site.

16 We use these, this setup, for analyzing digital images,
17 high-resolution digital images in stereo.

18 MR. JOHNSON: Go to 475.

19 DOCUMENT TECHNICIAN: (Complied with request.)

20 BY MR. JOHNSON:

21 Q This is the last of the photos. What is this?

22 A It's an analytical stereo plotter. It's a very large
23 piece of equipment. It's sophisticated equipment that allows
24 you to view film positives in stereo. It has an optical
25 train. It has excellent optics, but it's interfaced with a

1 computer and software so that not only can you see the images
2 in 3D, but once you get your stereo model set up, it will
3 allow you to make very precise measurements, such as elevation
4 measurements or, you know, how tall is a tank or how tall is a
5 berm; linear, linear measurements.

6 We use this not only for -- just to aid us in our
7 analysis, but also we have a staff of photogrammetrists that
8 produce topographic and planometric maps, and they use
9 stereo -- or one of our analytical stereo plotters.

10 Q Do you use any other equipment to review historical
11 aerial photography in your job?

12 A Yes, I do. I don't have a photograph of it, but we also
13 have a soft copy stereo plotter, which is the same principle
14 as the analytical stereo plotter, but instead of using hard
15 copy or film products like film positives, you view digital
16 images, high-resolution digital images, and you do this, you
17 go through the same process of setting up the stereo model and
18 entering data. And it allows you, again, using the flicker
19 glasses, it allows you to see in stereo, and it also will
20 allow you to take measurements.

21 Q In connection with your work in this case, which of these
22 pieces of equipment have you used to review the historical
23 photographs that are at issue in this case?

24 A Well, I've used all four systems, not for every date of
25 photography, but in the course of looking through and

1 reviewing and analyzing the photography, I have used all four
2 systems.

3 Q All right. Well, why don't we take you through some of
4 the photographs that you have reviewed stereoscopically.

5 Why don't you show us 5017.

6 DOCUMENT TECHNICIAN: (Complied with request.)

7 BY MR. JOHNSON:

8 Q This is one -- I think everybody here may get tired of
9 these photos after a while, but this is obviously one that
10 we've seen before. It's a photo dated June 18, 1974. It's
11 obviously a monoscopic image of the Dyce plant on that
12 particular day.

13 But in connection with your work in this case, did you
14 view this particular photo stereoscopically in connection with
15 a different frame taken shortly before or after this one was
16 taken?

17 A Yes, I did.

18 Q And let me ask you about a few features in here.

19 In particular, why don't we start with the berm. Did you
20 look at the berm stereoscopically?

21 A I did.

22 Q All right. And when you looked at the berm
23 stereoscopically, what did you see?

24 A Well, on this date of photography, the berm is under
25 construction. It looks like they've just recently started

1 construction of the berm. The eastern side, there is mounded
2 material along the --

3 MR. JOHNSON: Yeah, blow that --

4 DOCUMENT TECHNICIAN: (Complied with request.)

5 MR. JOHNSON: Yeah. Good. Thank you, Neil.

6 THE WITNESS: -- along the eastern side here.

7 How come it's not working? There.

8 And along the northern back side of the tank farm
9 and around the corner, northwest, there, they're starting to
10 put material down. It's not very high. It's very low. And
11 then that's the only area where there's any berm material.
12 The berm doesn't extend down here or along the southern border
13 of the tank farm.

14 BY MR. JOHNSON:

15 Q Okay. To get rid of it, you just touch -- there you go.

16 Let me ask you -- I'll touch the screen. Let me ask you
17 about this area right in here. What is that that I've
18 circled, do you know?

19 A Yes.

20 Q Have you looked at this?

21 A Yes. That's a tank truck with a second tank trailer
22 attached that has backed down into the tank farm.

23 Q Okay. And there's no, there's no barrier to that tank
24 truck from having gotten into the tank farm, I take it --

25 A No.

1 Q -- at this point in time.

2 All right. Where is the northwest -- take it back out
3 again.

4 DOCUMENT TECHNICIAN: (Complied with request.)

5 BY MR. JOHNSON:

6 Q Where is the -- we've heard a lot in this case about the
7 northwest corner. Can you just tell us generally, by circling
8 the area, where the northwest corner appears on this
9 particular photo?

10 A It's in this area.

11 Q You're starting to get the hang of it.

12 A Yes, finally.

13 Q All right. When you viewed this photo stereoscopically,
14 what did you see about the vegetation in that particular area?

15 A Well, the vegetation looks uniform. It doesn't look like
16 it's damaged.

17 Q He's blown it up. Why don't you --

18 A There's no denuded areas.

19 Q He's blown it up. Why don't you do another circle there
20 of the more blown-up area.

21 A (Complied with request.)

22 Q Okay. I'm sorry; I cut you off. Go ahead. Tell us
23 about the vegetation that you saw when you viewed this
24 stereoscopically.

25 A It looks like the other vegetation in the field. It

1 doesn't look like it's been damaged.

2 MR. JOHNSON: Okay. Let's go to Photograph 5019.

3 DOCUMENT TECHNICIAN: (Complied with request.)

4 BY MR. JOHNSON:

5 Q Okay. Showing you 5019, which is another one we've seen
6 several times in this case, it's a photograph that was taken
7 on November 4, 1975. And, in particular, the question I guess
8 I have for you is, Did you view this one stereoscopically,
9 also?

10 A Yes, I did.

11 Q And let's start with the berm. Why don't you tell us
12 what you have seen stereoscopically as you viewed this photo
13 and its pair with regard to the berm.

14 A It looks like the berm is still under construction. The
15 segment along the east side, you can see that it's still --
16 along the east, it's not really smoothed out. It's irregular.
17 The berm along the northern side back here has been
18 constructed. It's reached its final height. Around the
19 northwest corner, it's not smooth. There's a lot of kind of
20 unconsolidated earthen material here.

21 Then the berm, as it extends south along the west side,
22 it gradually decreases in elevation. Actually I'm drawing to
23 the west of the berm. I'm not drawing right on the berm. But
24 there are some breaks in the berm, and as you continue south,
25 you get just some mounds of material here and here of earthen

1 material, so the berm is really not continuous along this
2 section.

3 In the area behind the small warehouse, there's no berm
4 in that location. Let me -- there is a piece of the berm, and
5 it's going to be hard for me to draw this precisely, but you
6 can see right here in the light, and it's not obscured by the
7 shadow, that's a piece of the berm, and it does extend west --
8 eastward to about less than half the distance of the drumming
9 shed. It also extends into the shadow a little ways, maybe
10 not that much, on the west side. Probably comes in to about
11 there.

12 MR. JOHNSON: Okay. For the record, I'm going to
13 want her to just draw the berm in on a photograph.

14 BY MR. JOHNSON:

15 Q But let me ask you this, Ms. Stout. There's a shadow
16 there. How do you -- how can you see into the shadow to see
17 that there's no berm when you view these things
18 stereoscopically?

19 A Well, for this date of photography, I looked at it,
20 analyzed it using our analytical stereo plotter, which has a
21 more intense power, stronger light source than the -- than my
22 light table. And what you can't really see, because we're
23 just looking at the mono image, but there's another frame, and
24 you can actually see down on the ground in there. As you
25 brighten it up, you lighten up the shadow area as much as you

1 can. There's actually some features along the back of the
2 warehouse. And by lightening it up, you can see variations in
3 the gray tone in that shadow that may not appear on this
4 digital image, and that allows me to see the surface.

5 There's also a distinct low point in the shadow that's
6 right there where I can see where the elevation and the
7 terrain slopes down to a low point, and that's lighter in
8 tone, too.

9 Q So since that's a low point, if you had a spill of
10 chemicals in the area, in the loading/unloading area that I
11 just talked about, as of this date, November 4, 1975, where
12 would it drain from that area that I just -- in front of the
13 drumming shed?

14 A Well, if there was enough liquid to drain out of the
15 loading area, it would drain around to that low spot and then
16 flow out into the, into the tank farm.

17 MR. JOHNSON: Okay. Your Honor, if I could
18 approach, I'd like to have her just draw on this one.

19 BY MR. JOHNSON:

20 Q And outline, outline where the berm -- where you saw the
21 berm when you looked at this stereoscopically and where you
22 saw -- just outline where you see the berm with this black
23 Sharpie. Hopefully it will show up on the copy. And then why
24 don't you put your name on that.

25 And I'm showing her, Your Honor, Exhibit 4836, which we

1 just labeled.

2 (Pause.)

3 (Discussion off the record at the bench between the Court
4 and courtroom deputy clerk.)

5 THE COURT: 4836 is illustrative?

6 MR. JOHNSON: It will be an illustrative exhibit.

7 THE WITNESS: How much of the berm did you want me
8 to draw? The whole thing?

9 BY MR. JOHNSON:

10 Q Why don't you just do the whole berm. Outline the whole
11 berm where you see it. In particular, obviously, on the south
12 side is where it's important to tell us where it is and where
13 it ends.

14 (Pause.)

15 BY MR. JOHNSON:

16 Q Did you do it?

17 A Yes, and do you want me to --

18 Q Just put your last name there. That's fine. In the
19 margin. Does it come out?

20 A Yes.

21 Q Yeah.

22 A A 1?

23 Q Yeah, put a 1 there to indicate what you did, and then
24 also just put your name next to it so we know.

25 A (Complied with request.)

1 MR. JOHNSON: Great. I appreciate it.

2 Now actually, Your Honor, we had done this before --
3 let me show it to counsel (handing).

4 We had done this before with regard to Mr. Colver,
5 and it's actually, as you can tell from when the depositions
6 are read, people say, "Yeah, it's over here. It's over there.
7 It's over there." This is important testimony, and we would
8 like it to be part of the evidentiary record, Your Honor, this
9 exhibit, because it tells everybody where she -- it's part of
10 her testimony, frankly.

11 MR. LYNCH: We'd object to that, Your Honor, on the
12 grounds that it emphasizes the witness's testimony, since
13 transcripts can't go in.

14 THE COURT: Well, I'm going to admit it for
15 illustrative purposes. You can put it on the DOAR screen if
16 you want to and show it.

17 MR. JOHNSON: All right. Well, I don't need to put
18 it on the screen. I think that she sufficiently stated for
19 our purposes where she sees the berm going, but we've created
20 it just for our record so that we can use it later in the
21 case.

22 BY MR. JOHNSON:

23 Q Let me ask you a few other questions about this
24 particular photograph.

25 There is an area here that there's been, I think, some

1 testimony on. Can you tell us what you saw in that area when
2 you viewed this stereoscopically?

3 A Well, the, this gray flow pattern here is indicative of
4 liquid that's flowing from in the shadow area out in a north,
5 northwesterly direction.

6 MR. JOHNSON: Okay. And, Neil, if you could blow up
7 this area right here next to the tanks?

8 DOCUMENT TECHNICIAN: (Complied with request.)

9 BY MR. JOHNSON:

10 Q Okay. Let me ask you about this particular area right
11 there. When you looked at these, this picture,
12 stereoscopically, what did you see in that area?

13 A There are three horizontal tanks. There's one larger
14 tank right here and then two tanks that are approximately the
15 same size. They're lighter. They're right here and here.

16 Q Okay. The one that's gray, why is one gray and the other
17 white, do you know?

18 A I don't know.

19 Q Let me -- okay. Let's take that away.

20 Go up to the catch pond area and blow that up.

21 DOCUMENT TECHNICIAN: (Complied with request.)

22 MR. JOHNSON: Blow the catch pond area -- the catch
23 pond up as much as you can without destroying the quality. A
24 little bit more. A little bit more. A little bit more.

25 DOCUMENT TECHNICIAN: (Complied with request.)

1 MR. JOHNSON: All right. Good.

2 BY MR. JOHNSON:

3 Q Everybody here knows where the catch pond is. What did
4 you see when you looked stereoscopically at this photograph in
5 the catch pond area?

6 A Well, there's liquid in the catch pond. Also, along the
7 western side between the berm and the catch pond, right along
8 here and to the right of that, there's a series of pallets,
9 like wooden pallets, flat pallets that are placed along the
10 edge of the pond and then also down in this area as well.
11 There's some, also some flat pallets in there.

12 Over here, that's a large storage tank, and then these
13 features, I wasn't able to identify them specifically. They
14 look like maybe pieces of scrap or parts of equipment. This
15 one is actually in the water.

16 Q Okay. And can you tell us about approximately how large
17 or what the diameter is of that catch pond at that point in
18 time?

19 A It's approximately 20 feet in diameter.

20 MR. JOHNSON: Let me -- let's go to the -- go all
21 the way out again.

22 DOCUMENT TECHNICIAN: (Complied with request.)

23 BY MR. JOHNSON:

24 Q Can you, on this photograph, 5019, again, trace what has
25 been referred to here as the northwest corner in this case?

1 (Pause.)

2 THE WITNESS: Not very well.

3 BY MR. JOHNSON:

4 Q Why don't you erase that and try all over again. If you
5 just touch it, it makes a cross, but if you start doing the
6 thing real quick, you'll be able to do it.

7 A In that area.

8 Q Okay. And when you looked at this photograph
9 stereoscopically, what did you see -- this, again, is 1975,
10 November of 1975. What did you see with regard to the
11 vegetation in that particular area?

12 A The vegetation looks fine. It's very uniform, just like
13 the vegetation in the field. It doesn't appear to be that
14 it's been damaged. There are no devegetated areas there.

15 Q All right. We heard yesterday, I think, some testimony
16 with regard to, out and down here, with regard to the
17 devegetation in that particular area, and I'll ask you what
18 you saw when you looked at this thing stereoscopically, what
19 you saw with regard to that area.

20 A Okay. Can you blow that up?

21 Q Yeah.

22 DOCUMENT TECHNICIAN: (Complied with request.)

23 THE WITNESS: This devegetation is associated with a
24 ditch. The ditch runs back up to this little impoundment and
25 also continues up to this location. It runs along here. So

1 there's just a ditch, and there's devegetation along the sides
2 of the ditch.

3 BY MR. JOHNSON:

4 Q All right. When you looked at this, did you -- does the
5 devegetation of this ditch connect to the northwest corner?

6 A No, it doesn't.

7 MR. JOHNSON: Why don't you go to the next
8 photograph, 5024.

9 DOCUMENT TECHNICIAN: (Complied with request.)

10 BY MR. JOHNSON:

11 Q This is a photo that we've seen before that's dated
12 September 6, 1977. I presume you looked at this one
13 stereoscopically as well; is that correct?

14 A Yes, I did.

15 MR. JOHNSON: All right. Now go into the drumming
16 area a little bit.

17 DOCUMENT TECHNICIAN: (Complied with request.)

18 BY MR. JOHNSON:

19 Q All right. I'm going to ask you first of all, with
20 regard to this stuff that's right in front of the -- to that
21 black mark that's right in front of the drumming shed, what
22 did you see there when you viewed this stereoscopically?

23 A That's a wet area where liquid collects.

24 Q And let's talk about the berm at this point. I think
25 this one is fine right now as it is.

1 What did you see when you viewed this stereoscopically
2 with regard to the berm at this point in time?

3 A Well, you can see that they have finished working on the
4 berm. It's more uniform and smooth. It starts from here. It
5 goes up, around, back. All nice and uniform, smooth. Comes
6 down across the entire western side of the tank farm and then
7 runs behind the small drum -- the small warehouse. It runs
8 over to -- it extends a little bit further than the X that I
9 made there. I'll try -- yes. Right about at the end of that
10 line there, that's as far as the berm extends.

11 I could see this stereo- -- when I looked at this
12 stereoscopically, you can see the mound, the rise of the berm,
13 but as you zoom in on that and look at it, you can also see,
14 just from the photograph, you can see the shadow that's cast
15 along the back side of the berm.

16 MR. JOHNSON: All right. Can you go into that area
17 right there and just make it larger? A little bit more. Put
18 that right in the center.

19 DOCUMENT TECHNICIAN: (Complied with request.)

20 MR. JOHNSON: There you go. All right. I think
21 that's about as big as we can go.

22 BY MR. JOHNSON:

23 Q So where on this enlargement do you see the -- strike
24 that, did you see the end of the berm when you viewed it
25 stereoscopically?

1 A Yes. It's right there. No, right there.

2 Q Okay. And there's a shadow. You can see a shadow there?

3 Is that --

4 A Yes, the shadow is along here.

5 Q Okay.

6 A I'll turn this off so you can see it.

7 Q So you can see this -- you saw this stereoscopically, but
8 there's also monoscopic evidence of the end of the berm there?

9 Is that --

10 A Yes, from the shadow. The end is where the shadow ends.

11 MR. JOHNSON: Take it back out again.

12 DOCUMENT TECHNICIAN: (Complied with request.)

13 MR. JOHNSON: Let me, if I can -- this is the last
14 one I'm going to have her mark, Your Honor. It's 4837.

15 BY MR. JOHNSON:

16 Q And can you draw in on 4837 where you have seen the berm
17 when you viewed it stereoscopically?

18 A (Complied with request.)

19 (Pause.)

20 THE WITNESS: Would you like me to label it?

21 BY MR. JOHNSON:

22 Q Yes, label it No. 1 and put your name on it again.

23 A (Complied with request.)

24 The way I've drawn it on one side, it looks like I've
25 drawn it thinner, but that wasn't my intention. It's fairly

1 uniform in width all the way around.

2 Q Okay. What side did you draw it thinner on?

3 A The west side.

4 Q Okay. Let me pick that up.

5 Let me ask you about a few other things that you may have
6 viewed stereoscopically when you looked at this.

7 Right now in this photo, there are three tanks, and I
8 think we've heard of these before in this case. Can you tell
9 us what you saw when you looked in that area behind the
10 drumming shed?

11 A Well, I saw three horizontal tanks, white horizontal
12 tanks that are right next to each other.

13 Q Okay. But there's no, there's no -- just for
14 clarification, you didn't see a berm between the back of the
15 drumming shed and those tanks; is that correct?

16 A No.

17 Q Okay. And let me ask you about this particular area.
18 What, if anything, did you see when you viewed these
19 stereoscopically in that area?

20 A Well, that lighter gray area is a flow pattern. It
21 indicates that liquid has, emanating from here, has flowed out
22 in this direction --

23 Q Okay.

24 A -- to the north, northwest.

25 Q All right. Let me ask you whether, in this particular

1 photograph, and it's fine where it is, did you see any
2 fencing?

3 A Yes. There's a fence that runs along the outside of the
4 eastern berm of the tank farm.

5 Q All right. Why don't you trace that, if you can.

6 A You can actually see it on the image. It's a dark line.

7 Q All right. Well, why don't you trace next to it on the
8 outside of it so that we can see what you're referring to.

9 A Ah. I'll do that again.

10 Q Did you see any other fencing as of this date?

11 A Well, it connects. It goes all the way up and connects
12 with a fence that runs along the north side of the operational
13 area, and then there's another fence that runs down here on
14 the west side of the operational area. Of course, there's
15 some fencing on the other side as well.

16 MR. JOHNSON: All right. Let me ask you, if you
17 can, Neil, to blow up the catch pond area.

18 DOCUMENT TECHNICIAN: (Complied with request.)

19 MR. JOHNSON: Cool. That's good. Maybe take it
20 back a little bit so we can --

21 DOCUMENT TECHNICIAN: (Complied with request.)

22 MR. JOHNSON: There you go.

23 BY MR. JOHNSON:

24 Q What did you see when you viewed the catch pond area
25 stereoscopically?

1 A Well, it's, obviously it's dry on this date. The area
2 right in the corner here, right on the inside of the berm,
3 right there, that's the lowest spot.

4 Q Okay. And what did you see when you looked outside
5 stereoscopically at the berm? What did you see in that area?

6 A This area has been reworked with the completion of the
7 berm. As they've smoothed out the berm -- as you recall,
8 there was some material, earthen material in there. Now we
9 see a linear feature, this dark feature that's above where
10 that line is. You can see the linear, dark linear feature.
11 That's a ditch. It's a man-made ditch that runs -- it starts
12 on the outside at the base of the berm and runs in that
13 westerly direction.

14 Q You said it was man-made?

15 A Yes.

16 Q How do you know it's man-made?

17 A Well, it wasn't there in '74 -- I mean '75.

18 MR. JOHNSON: Let's go back. Why don't we toggle
19 back to '75 and take a look at that area. That's 5019. All
20 right. And blow up that area.

21 DOCUMENT TECHNICIAN: (Complied with request.)

22 THE WITNESS: You can see that there's no ditch here
23 on this date and that the ground is very rough, and they
24 haven't really smoothed out the outside of the berm.

25 MR. JOHNSON: Okay. And let's go back. That was in

1 1975, as I recall that one. And then let's go back to the
2 1977 photo that we were looking at a second ago, and go up to
3 that area. Go back out, because I think you can see it a
4 little better.

5 DOCUMENT TECHNICIAN: (Complied with request.)

6 MR. JOHNSON: That's good.

7 BY MR. JOHNSON:

8 Q What else do you see in that particular area? What did
9 you see when you looked at this stuff stereoscopically with
10 regard to that area?

11 A Well, the ditch runs over and then runs into a low area
12 in here.

13 Q Okay.

14 A It runs into a low area which then drains into the --
15 this ditch. This, this ditch just ends at the fenceline.

16 Q Okay. That's good. Let me take it down.

17 Now let me ask you this. With regard to this particular
18 ditch that I've covered, completely covered up that you say is
19 the man-made ditch, you were in court, I take it, when Monte
20 Naff testified that that was a horse or cattle trail?

21 A Yes, I was.

22 Q Do you agree with that?

23 A No. No, that isn't a horse or cattle trail. It just
24 leads to the berm, and it's very uniform. It wasn't there in
25 '75. And, also, when they completed the berm, they've

1 constructed -- you know, fenced off this area here.

2 Q All right.

3 A It's not a cattle trail.

4 MR. JOHNSON: Let me -- let's take it back out
5 again. Let's go, if you can, out.

6 DOCUMENT TECHNICIAN: (Complied with request.)

7 BY MR. JOHNSON:

8 Q Circle for us what is the northwest corner area as of
9 this date.

10 A (Complied with request.)

11 Q All right. When you looked at that area through your
12 stereoscopic viewing, what did you see with regard to the
13 vegetation in that area?

14 A The vegetation looks fine. It doesn't appear to have
15 been impacted by -- it's still vegetated. It appears like the
16 other vegetation in the field to the north. I don't, I don't
17 see anything that would cause me to be concerned.

18 Q All right. And Neil just drew it bigger, so I guess
19 that's approximately the northwest area. I think it's too big
20 on the bottom, but you would agree that that's approximately
21 the northwest corner area, correct?

22 A Yes.

23 Q All right. What's the deal here? What is that? What
24 did you see when you looked at that area?

25 A Well, that's bare ground. That area is an area that's

1 been devegetated right outside the corner of the fenceline.
2 It's where this ditch ends. This ditch here ends, and this
3 area is -- the vegetation is gone.

4 Q Now do you have an opinion as to what caused that area to
5 be devegetated?

6 A I do. I think it's from the flow of liquid into that
7 area.

8 Q Okay. And the liquid, is it chemical impacts, do you
9 believe?

10 A I think it's -- yes, I think it is.

11 MR. JOHNSON: Okay. Let's go -- pull out again,
12 Neil.

13 DOCUMENT TECHNICIAN: (Complied with request.)

14 BY MR. JOHNSON:

15 Q These are my final questions with regard to this photo.
16 There's obviously some devegetation in that area as well.
17 Do you see that?

18 A Yes.

19 Q All right. When you looked at this photograph
20 stereoscopically, the question I guess I have for you is, Was
21 there a connection between the devegetation in the area that I
22 just touched and the devegetation in the area that we just
23 talked about?

24 A No, there's not. There's actually vegetation in between
25 here that hasn't been impacted at all.

1 MR. JOHNSON: Why don't we go to the next one, which
2 is 5028.

3 DOCUMENT TECHNICIAN: (Complied with request.)

4 BY MR. JOHNSON:

5 Q Now, Ms. Stout, I'm showing you a photo that was taken on
6 May 14, 1979. And you viewed this one in stereo, too, I
7 presume?

8 A Yes.

9 MR. JOHNSON: Okay. Blow up the tank farm area
10 somewhat.

11 DOCUMENT TECHNICIAN: (Complied with request.)

12 MR. JOHNSON: Good.

13 BY MR. JOHNSON:

14 Q What did you see when you viewed this stereoscopically in
15 that area?

16 A Well, the three small horizontal tanks have been removed,
17 and they put a concrete pad underneath this tank, and they've
18 installed a larger tank. This is a larger tank here. And
19 they actually moved the concrete pad and the tank further back
20 to the north, northwest because now the berm actually extends
21 all the way over to where these three large vertical tanks
22 are. So now the berm is complete behind the drumming shed or
23 portion of the drumming shed.

24 Q Is this the first photograph you've seen in which the
25 berm is complete along the south side?

1 A This is the first photograph that I could confirm that
2 the berm was complete.

3 Q All right. And the tank you were talking about is the
4 one I just touched?

5 A Yes.

6 Q Okay. Let me ask you this question with regard to this.
7 There seems to be a black line coming right down the middle of
8 the -- between that tank and the tanks on the other side. Do
9 you know what that is?

10 A Well, that black line is shadow. In looking at it
11 stereoscopically, you can see that there are a series of
12 pipes, like a grouping of pipes that come down from the tank
13 yard, tank farm, and over the berm. They come to here where
14 the shadow is, and they appear to end. They probably actually
15 turn and go back to the -- and come in to the back of the
16 drumming shed. That's the testimony that I've heard.

17 Q All right. We were just looking before. This is a 1979
18 photo, and we were looking, just previous to this, to a 1977
19 photo. Did you see that piping exist in the 1977 photo?

20 A No, I didn't.

21 MR. JOHNSON: Pull it back out, Neil. Let's go up
22 to the catch pond.

23 DOCUMENT TECHNICIAN: (Complied with request.)

24 BY MR. JOHNSON:

25 Q When you viewed this stereoscopically, this 1979 photo,

1 what did you see with regard to the catch pond itself? And
2 I'll just circle it here. What did you see when you looked at
3 this stereoscopically?

4 A Well, obviously there's no liquid in the catch pond on
5 this date. It is the lowest point of the -- in the tank yard,
6 the tank farm.

7 One thing to note, though, is that there's this
8 light-toned residue along the base of the berm, and it extends
9 up the side of the berm in the northwest corner a little bit.
10 You can also see down in this area. There's light-toned
11 residue. There's a flow pattern to it. It looks like liquid
12 has flowed down here previously and collected --

13 Q And -- I'm sorry. Continue.

14 A -- and collected in the catch pond.

15 Q All right. And what did you see when you looked
16 stereoscopically at the area northwest of the berm, right
17 outside the berm?

18 A Well, the topography really hasn't changed in that area.
19 You see this linear feature. That's the man-made ditch, and
20 it connects in and flows over to this area in here, which is a
21 depression, a low area, which then abuts this other ditch. It
22 comes like this.

23 Q Um-hmm.

24 A And it, this ditch, now, has eroded, and it extends
25 further to the west than what's shown on the photograph here.

1 MR. JOHNSON: Why don't you pull it out all the way.

2 DOCUMENT TECHNICIAN: (Complied with request.)

3 BY MR. JOHNSON:

4 Q All right. Why don't you, on the photograph, outline
5 what is the northwest corner on this photo.

6 A (Complied with request.)

7 Q And when you viewed this photograph stereoscopically,
8 what did you see in that area of the northwest corner?

9 A Well, there's a significant amount of vegetation damage.
10 This light-toned area is bare soil. Also, looks like the
11 result of liquid flowing in this area out to here. One of the
12 indications of that is we have these long, linear,
13 light-toned, like little fingers that come down, and there
14 were a number of like little trails or areas where the ground
15 was a little bit lower, like little ditching, so any liquid
16 flowing out there is going to follow those low areas out a
17 ways, and that's really what you see here and see that that
18 liquid flowed down there and killed the vegetation along that
19 little, that little depression, that linear depression.

20 Q Is that chemical impact, do you think?

21 A Oh, yes, I think it's chemical, yes.

22 Q All right. Is it mechanical at all from truck traffic
23 or --

24 A I don't see any evidence of that. There's certainly some
25 vehicle tracks over here in the field, but it doesn't look

1 like it's been graded or scraped, and the testimony that I've
2 heard is that they really never had any activity. They never
3 did anything down in this corner associated with the
4 operations.

5 Q And that, I guess the question is -- let me get rid of
6 your one. This devegetation apparently connects to the other
7 devegetation. Can you tell us whether you came to that
8 conclusion when you looked at this thing stereoscopically?

9 A Well, this devegetation is connected here. There's also
10 some additional -- this area of devegetation has expanded
11 somewhat, a little bit.

12 Q All right. And this is a photograph, a 1979. Has there
13 been a progression of devegetation, from your review of the
14 photographs, since the prior one we saw, 1977?

15 Why don't you toggle back to '77.

16 DOCUMENT TECHNICIAN: (Complied with request.)

17 THE WITNESS: Well, you can obviously see that in
18 '77 the area of devegetation is smaller, significantly smaller
19 than what we see in '79.

20 MR. JOHNSON: All right. Why don't you go to
21 Exhibit 5033.

22 DOCUMENT TECHNICIAN: (Complied with request.)

23 BY MR. JOHNSON:

24 Q This is a photograph that was taken on June 2, 1981, and
25 the question I have for you is whether you viewed this one

1 stereoscopically.

2 A Well, this photograph, I could see most of the site in
3 stereo. There is a portion of it, like up in here, where the
4 adjoining frames don't cover that, so that area I couldn't see
5 in 3D.

6 Q Okay. But you were able to see the tank farm and the
7 catch pond, I take it, in the 3D?

8 A Yes.

9 MR. JOHNSON: All right. Why don't you pull it in.

10 DOCUMENT TECHNICIAN: (Complied with request.)

11 MR. JOHNSON: There you go.

12 BY MR. JOHNSON:

13 Q I have to ask you about this. What did you see there
14 when you saw that stereoscopically?

15 A That's liquid that's pooled in front of the drumming
16 shed, to the south of the drumming shed.

17 Q Okay. There is a tank here. What did you see with
18 regard to and what did you conclude when you saw that tank?

19 A Well, that tank is the same size and configuration of the
20 tank that we saw in '79 that was directly behind the drumming
21 shed on that concrete pad.

22 Q Okay. Is it sitting in a concrete pad on this thing?

23 A No, it's not.

24 Q And what's that -- what is in that area there? That's
25 not concrete, is it?

1 A No. It looks like either earth or bare ground or maybe
2 gravel.

3 MR. JOHNSON: Okay. Let's go back out, Neil, a
4 little bit.

5 DOCUMENT TECHNICIAN: (Complied with request.)

6 BY MR. JOHNSON:

7 Q I wanted to ask you about the berm. What did you see,
8 when you viewed this stereoscopically, what did you see with
9 regard to the berm?

10 A Well, the berm has been reconfigured. It's actually been
11 moved further north so that it parallels the fenceline, and
12 also the berm has been moved to the east, so it starts way
13 over here, comes around. And what they did was they connected
14 the berm up with the rail spur berm so that the two just flow
15 together like this. So now the area within the berm is much
16 larger than it was previously.

17 Q All right. And what, if anything, did you see with
18 regard to the size of the catch pond?

19 A Well, it's gotten significantly bigger.

20 Q Okay. And do you see ditches running to the catch pond?

21 A Yes. There are two ditches, one that runs along the west
22 side. It runs along here and flows into the catch pond, and
23 then another one. This is a new ditch that's been
24 constructed. It starts here and flows into the catch pond.
25 It looks like it, in the southern portion, it looks like it's

1 maybe lined, or I think the testimony is that there was a
2 grate over it, but definitely in this portion of the, in this
3 portion of the ditch, it's an unlined ditch.

4 Q Okay. And what, if anything, did you see within the
5 catch pond at this point?

6 A There's liquid in the catch pond.

7 Q Let me ask you what you saw when you viewed this
8 photograph stereoscopically, what you saw in the area that
9 I've just circled that's directly to the west of the berm
10 that's next to the catch pond.

11 A Well, I had to view this area in mono, but I did look at
12 other photography that was taken in 1981. It's not as clear,
13 but I could still see; because I could see it in stereo, I
14 could see the topography.

15 This light area is earthen material, like a mound of
16 earthen material like about a foot and a half high. It abuts
17 up against the earthen berm adjacent to the catch pond.

18 This area in here, which is where the two fences come
19 together, that's been dug out. That's a low area here. It's
20 a depression.

21 Q Now let me ask you a question about the outside of the
22 berm. There seems to be -- I can see something that's black
23 right there. Were you able to see and determine what that was
24 when you viewed this photograph stereoscopically?

25 A That's a feature. It looks like a man-made feature. I

1 was not able to identify or recognize specifically what it is,
2 but it is sitting just on the other side of the top of the
3 berm.

4 Q Okay. But you couldn't make out what it is?

5 A I couldn't tell what it is.

6 Q Why do you believe it was man-made?

7 A Because it's not vegetation, and it has specific form and
8 shape to it.

9 Q Now we've all heard Marvin Johnson's testimony on a
10 couple of different dates and a couple of different years
11 about the pipe that extended out from the berm when he went to
12 work there in the 1980s, and this is a 1981 photograph. Were
13 you able to see the pipe that Mr. Johnson testified to?

14 A No, I didn't see a pipe there.

15 Q Why not?

16 A Well, if there was a pipe that was an inch and a half or
17 an inch and a quarter in diameter, we would not be able to see
18 it on this photography because of the resolution. This was
19 from a digital scan, and just the actual pixel size of this
20 scan is equivalent to about 4 or 5 inches on the ground, so
21 anything that small wouldn't show up on the image.

22 MR. JOHNSON: Pull it back out a little bit, Neil.

23 DOCUMENT TECHNICIAN: (Complied with request.)

24 BY MR. JOHNSON:

25 Q There's a tank car here, tank car or cars. What did you

1 see when you looked at this stereoscopically with regard to
2 those cars?

3 A Well, there's one tank car, railcar, sitting there on the
4 spur. You can see like a pipe coming in from the tank farm
5 over to the, to the tank car, and this is -- historically this
6 has been where they've loaded or offloaded product from the
7 tank car. I've seen a pipe there in previous years as well.

8 MR. JOHNSON: Okay. Pull that back out a little
9 bit, Neil.

10 DOCUMENT TECHNICIAN: (Complied with request.)

11 BY MR. JOHNSON:

12 Q All right. Let's go to the northwest corner. Can you
13 circle it?

14 A (Complied with request.)

15 Q All right. It's obviously still devegetated, correct?

16 A Yes, it is.

17 Q All right. And it's still connected to other
18 devegetation in that area; is that true?

19 A Yes, along here.

20 Q What, if anything, have you seen differently in this time
21 frame with regard to the devegetation in this particular area
22 outside the berm?

23 A Well, one thing that I've noted that's changed between
24 '79 and this -- and '81 is that the devegetation in this area
25 is expanding. It's expanding out in a northwesterly

1 direction.

2 Q Okay. And the last photo I'm going to show you is 5036,
3 which is dated 7/27. That's July 27, 1983. Did you view this
4 photograph stereoscopically?

5 A Yes, I did.

6 MR. JOHNSON: And, again, pull into the tank farm,
7 Neil.

8 DOCUMENT TECHNICIAN: (Complied with request.)

9 BY MR. JOHNSON:

10 Q I guess I'll ask you what you saw stereoscopically in
11 that area that I just circled south of the drumming shed.

12 A That's pooled liquid like we've seen on other dates.

13 Q Um-hmm. And get rid of that.

14 What did you see about the catch pond at this point in
15 time when you viewed it stereoscopically?

16 A Well, a couple things. Obviously the dark area here is
17 liquid. That's where the ditches run into the pond. The area
18 is wet soil or from a sludgy material when it comes in here
19 and comes in here.

20 The other thing that I noticed -- and you can see,
21 plainly see that now there's this light-toned cover along the
22 top of the berm. And just to put that, to give you, put that
23 in perspective, that, the very top, the top of the light is
24 the very top edge of the berm, and then the light material
25 comes down the slope on the inside of the berm.

1 Q Okay. So what you see on the outside is just -- is the
2 very top of the berm?

3 A The --

4 Q Of that white feature?

5 A Yes. The northern edge of that white feature, sort of
6 the outside edge of the white feature is the top, very top of
7 the berm.

8 Q All right. Let me -- in the catch pond, obviously the
9 water is the very dark feature, I take it?

10 A Yes.

11 Q All right. But I can see, at least, here and here and
12 here and here, some things that are grayish, and what did you
13 see when you viewed that area stereoscopically?

14 A Well, that area is wet, but it also looks like there's
15 almost a sludgy material in there.

16 Q What did you say?

17 A Sludge, like a sludge.

18 Q Okay. And just finally with the catch pond, what the
19 heck is going on over here?

20 A Well, they've moved the -- if you could move down just a
21 little bit on the screen?

22 DOCUMENT TECHNICIAN: (Complied with request.)

23 THE WITNESS: Yeah.

24 They moved -- there were tanks, as you recall, there
25 were tanks over in here, vertical tanks, and they've moved

1 those tanks. Now it looks like -- appears that this whole
2 area down in here is being used for open storage. These
3 are -- there's stacked material in here. Some of it looks
4 like it may be containers, scrap material. Just using this
5 area now for open storage.

6 MR. JOHNSON: Okay.

7 THE COURT: Let's stop there for a minute. I want
8 to take another quick break.

9 THE LAW CLERK: All rise.

10 (Recess taken from 15:58:57 to 16:08:39.)

11 (Open court.)

12 (Jury present.)

13 THE COURT: Please be seated.

14 MR. JOHNSON: Your Honor, I did not move admission
15 of 4837, which was the second photograph dated September 6,
16 1977 on which she drew the berm. I would move for its
17 admission at this time.

18 THE COURT: It's admitted for illustrative purposes.

19 MR. JOHNSON: Thank you, Your Honor.

20 BY MR. JOHNSON:

21 Q Now going back to the last photo, 5036, and let me ask
22 you about the area that's in the northwest here outside of the
23 berm. All right. Well, we can all -- I think everybody sees
24 where I'm pointing to.

25 What did you see when you viewed this photograph

1 stereoscopically with regard to that area outside the berm and
2 the drainage in that particular area?

3 A Well, I could see this in stereo this year, this area,
4 and --

5 Q You could or could not?

6 A I could. I could see this in stereo.

7 As I said before, there's a mound here, a mound of
8 earthen material, and the depression that I had discussed
9 before, it's like a little impoundment. That is filled with
10 liquid. Right at the base of the berm below where the dark
11 feature is --

12 Q Um-hmm.

13 A -- there is a, it looks like, a linear or light-toned
14 ground scar. It starts right there. It's a flow pattern.
15 It's indicative of liquid that's flowed through there and
16 killed the vegetation. It flows in, based on the topography
17 and the lack of vegetation, liquid would flow over and into
18 this little impoundment. Also flow over to the north side of
19 the fence up into this, this area.

20 When this impoundment -- if it were to fill up with
21 liquid, it would also flow, spill out on the north side and
22 also on the west side of the impoundment and flow out to the
23 west. There was also an area here or a devegetated area here
24 that looks like at some point in time there was liquid flowing
25 out there, and they have placed like a mound, a little mound

1 of material right here to contain it.

2 Q All right. With regard to the devegetation in that area,
3 do you have an opinion as to what caused it?

4 A I -- yes. Yes.

5 Q What's that opinion?

6 A Liquid that's flowing out from the base of the berm out
7 into this area.

8 Q Okay. Let me -- you have a demonstrative on that, but
9 before I go to that, here is another black thing right on the
10 outside of the berm. Did you look at that stereoscopically?

11 A Yes. That's that same dark feature. I still was unable
12 to determine specifically what it is or what it was.

13 Q Is it natural or man-made?

14 A It's man-made.

15 MR. JOHNSON: Let me go to the demonstrative you
16 have, I think, on this particular picture, on this particular
17 photo. Let me go to 466, page 1.

18 DOCUMENT TECHNICIAN: (Complied with request.)

19 BY MR. JOHNSON:

20 Q All right. This is the same photograph, correct,
21 July 27, 1983?

22 A Yes.

23 Q All right. And on this photograph, there are three well
24 or well points. Do you see that?

25 A Yes.

1 Q Why did you put those well points on there?

2 A Because counsel asked me to plot the location of those
3 wells on this photograph.

4 MR. JOHNSON: Okay. Why don't you go to the next
5 photo.

6 DOCUMENT TECHNICIAN: (Complied with request.)

7 MR. JOHNSON: The next demonstrative, page 2.

8 DOCUMENT TECHNICIAN: (Complied with request.)

9 BY MR. JOHNSON:

10 Q And this is a demonstrative you created as well, correct?

11 A Yes. This better depicts what I was trying to do with
12 the screen here.

13 Q All right. Why don't you tell us exactly what it is,
14 that red stuff that you put in on this demonstrative.

15 A At this point, liquid flowing from this point would flow
16 along the lines as I've drawn them. The two red lines would
17 flow down, and this shaded red area is the low area, or like a
18 little impoundment that has liquid. If that impoundment fills
19 up, it will spill out along the line here, and, like I said
20 before, along this line, along here.

21 Q On the south side?

22 A On the south side and the west.

23 Q All right. Let's -- you've done several other
24 demonstratives. Let's go back to 465, which is the
25 demonstrative from 1979. Again, this, the first one, you've

1 plotted the well plots.

2 Let's go to the next one.

3 DOCUMENT TECHNICIAN: (Complied with request.)

4 BY MR. JOHNSON:

5 Q All right. Can you tell us what you've drawn in here
6 with this red area on the 1979, May 14, 1979 photo?

7 A Yes. The short red segment on the right, that's the
8 man-made ditch that comes from the edge of the berm, the
9 outside of the berm, and flows to the west. The shaded red
10 polygon is a low area where liquid flowing in that ditch is
11 going to spread out and then flow over into the, to the
12 adjacent ditch, and I've just delineated that ditch as far as
13 I can see it --

14 Q All right. When you said --

15 A -- to the west.

16 Q When you said "polygon," you're talking about that low
17 area? It looks more like a liver to me. This is the area
18 you're talking about right there, right?

19 A Yes.

20 Q And the flow continues to the west, is that correct, to
21 the west and northwest?

22 A Yes.

23 MR. JOHNSON: All right. Let me go back one more to
24 the 1977. Just a second.

25 (Discussion off the record at counsel table.)

1 BY MR. JOHNSON:

2 Q And these are the same three wells plotted, correct?

3 A Yes.

4 Q And this is the 1977 photo you plotted them on?

5 A Yes.

6 MR. JOHNSON: Okay. And go to 464, page 2.

7 DOCUMENT TECHNICIAN: (Complied with request.)

8 BY MR. JOHNSON:

9 Q Would you tell us what you've done with regard to the red
10 markings on this demonstrative?

11 A Yes. Just like on the previous one, the short red line
12 on the right is the man-made ditch that comes from the outside
13 of the berm, and it flows -- liquid in there would flow west.
14 And, again, I have a shaded red polygon which is a low area
15 where it would spread out and then flow into the ditch on the
16 west side.

17 MR. JOHNSON: Okay. And, finally, let me show you
18 1975.

19 DOCUMENT TECHNICIAN: (Complied with request.)

20 BY MR. JOHNSON:

21 Q You've plotted wells here again, I take it, on the 1975
22 photo, correct?

23 A Yes.

24 Q So they're all in the same location on all these photos,
25 correct?

1 A That's correct.

2 Q What is the flow here as it comes up? What do you see
3 there?

4 A Well, as the ditch -- this is the ditch that runs between
5 the rail spur berm here and the berm on the west side of the
6 tank farm. As it comes down here, it levels out, and this
7 darker area is where liquid sort of spreads out on the ground,
8 spreads out more, and you can see that liquid is spread out in
9 there, and then it continues to flow and sort of peter out
10 about right there.

11 MR. JOHNSON: All right. Go to the next version of
12 this.

13 DOCUMENT TECHNICIAN: (Complied with request.)

14 BY MR. JOHNSON:

15 Q And is that, the red there is what you just demonstrated
16 to us?

17 A Yes.

18 Q And there's, it's like, a swampy area where you've got
19 the larger red area; is that correct?

20 A Well, I wouldn't call it a swampy area. Just a, just a
21 low area in the terrain where, as the liquid in the ditch
22 comes in there, it spreads out and then continues --

23 Q Let me ask you this. I'm sorry; were you done?

24 A -- and then continues down.

25 Q All right. Let me ask you this question. If somebody

1 were to go out to that catch pond and just run a hose over
2 here and pump out the catch pond at that time, where would
3 that flow go?

4 A Oh, it would go right into the, to the ditch, into that
5 low area and into the ditch.

6 MR. JOHNSON: Let me -- you can take that down.

7 DOCUMENT TECHNICIAN: (Complied with request.)

8 BY MR. JOHNSON:

9 Q Now as you said at the beginning, you've been here
10 throughout the trial, and you were here on Friday to hear
11 Dr. Powell testify, correct?

12 A Yes.

13 Q And you heard Dr. Powell testify that in his opinion, the
14 likely explanation for the contamination in the northwest
15 corner is a large spill of bulk-sized quantity of perc in the
16 unloading area in the mid 1970s that flowed via surface
17 drainage to the northwest corner and settled into the ground
18 there. Do you recall that opinion?

19 A I do.

20 Q All right. And he also -- you also heard Dr. Powell
21 testify that in his opinion, based on historical photographic
22 and other evidence, the perc contamination in the northwest
23 corner could not have resulted from releases or a release from
24 the catch pond. Do you recall that opinion that he gave?

25 A Yes.

1 Q Insofar as Dr. Powell relied on historical photographic
2 evidence for his opinion, do you disagree with him?

3 A I do.

4 Q Why do you disagree with him?

5 A Well, there are two reasons. One, during the time period
6 when the alleged spill of perc occurred in the loading area
7 adjacent to the drum storage area, if that had occurred in the
8 1975, '76, '77 time period, that would have flowed to the --
9 into the tank farm and eventually made its way to the catch
10 pond. Would not have flowed out to the northwest corner. And
11 that's because the berm wasn't continuous during that time
12 period.

13 The other reason I disagree with Dr. Powell is that from
14 the photographs that we've just seen and from my analysis,
15 that the -- there is visual evidence that is consistent with
16 discharges or releases from the catch pond of liquid that
17 would flow out towards the northwest corner, and that visual
18 evidence consists of the ditches and the flow pattern that
19 were there and then the corresponding areas of devegetation.

20 MR. JOHNSON: Thank you, Ms. Stout. I have no
21 further questions.

22 Your Honor, I would move for the admission of the
23 demonstrative exhibits, 466, which are pages 1 and 2; 465,
24 pages 1 and 2; 464, pages 1 and 2; and 463, pages 1 and 2.

25 THE COURT: They're admitted for illustrative

1 purposes.

2 MR. JOHNSON: Thank you, Your Honor.

3 Thank you, Ms. Stout.

4 THE WITNESS: You're welcome.

5 THE COURT: You may cross.

6 CROSS-EXAMINATION

7 BY MR. LYNCH:

8 Q Good afternoon, Ms. Stout.

9 A Good afternoon.

10 Q We've met before at your deposition. I just want to ask
11 you a few questions on cross this afternoon.

12 First, can you tell us when you were retained by the
13 insurance companies in this matter?

14 A I think it was spring of -- let's see. What's this year?
15 About a year ago, maybe. Last spring. Maybe April.

16 Q And you've obviously conducted analysis of some historic
17 aerial photographs in this matter, and you've explained that
18 procedure quite in depth, so I won't ask you too many
19 questions about it.

20 I do, however, want to confirm, so the jury understands,
21 the photos we've been viewing in trial today are actually
22 cropped and enlarged versions of what you actually looked at;
23 is that correct?

24 A Yes.

25 MR. LYNCH: And, Julianne, could you please pull up

1 Admitted Exhibit 3807?

2 DOCUMENT TECHNICIAN: (Complied with request.)

3 BY MR. LYNCH:

4 Q Ms. Stout, I'll represent to you this is another version
5 of the same November 4, 1975 photo we've been looking at.

6 Again, this is one that's been cropped and enlarged.

7 Julianne, could you please turn to page 2 of the exhibit?

8 DOCUMENT TECHNICIAN: (Complied with request.)

9 BY MR. LYNCH:

10 Q And, Ms. Stout, is this closer to what you actually look
11 at when you're looking at these photos?

12 A This is the footprint of the ground that's captured in
13 the entire frame of photograph, the photograph.

14 Q And the ratio we see in the lower left corner of that,
15 the 1 to 8,000, that means, I take it, that it's roughly, for
16 every inch on the photo, it's about 667 feet, in reality? Is
17 that correct?

18 A Oh, I think about it as for every inch on the photograph,
19 it's 8,000 inches on the ground.

20 MR. LYNCH: And, Julianne, if you could please pull
21 up Admitted Exhibit 5033? Can you zoom in on that a little
22 bit, please?

23 DOCUMENT TECHNICIAN: (Complied with request.)

24 BY MR. LYNCH:

25 Q Ms. Stout, this is one of the photographs that

1 Mr. Johnson was talking to you about today, and I thought I
2 heard you say that you only viewed this one monoscopically; is
3 that correct?

4 A A portion of it is not -- I don't have stereo coverage of
5 the entire area that I viewed. Just the area in here is
6 not -- in terms of what I was looking at on the site, that
7 area is not covered on the adjoining frames.

8 Q Okay. So the rest of it is stereoscopic, but this
9 upper -- the northwest corner area is monoscopic?

10 A That's correct.

11 MR. LYNCH: Okay. You can take that down, please,
12 Julianne.

13 DOCUMENT TECHNICIAN: (Complied with request.)

14 BY MR. LYNCH:

15 Q I'd like to talk to you about some of the features I
16 believe you observed in the -- on the photos.

17 Could you please pull up Admitted Exhibit 5024?

18 DOCUMENT TECHNICIAN: (Complied with request.)

19 BY MR. LYNCH:

20 Q This is the September 6, 1977 photo. And I believe you
21 indicated that there's a series of three tanks right in there
22 where I've put the X in the tank farm; is that correct?

23 A Yes.

24 Q And at least one of those tanks is a 1,500-gallon tank,
25 correct?

1 A Yes.

2 Q Okay. And you agree that the location of those tanks is
3 where, I believe, Dick Colver and Monte Naff testified that
4 the 1,500-gallon perc tank would be in this time frame; is
5 that correct?

6 A I don't remember --

7 MR. JOHNSON: Your Honor, objection.

8 THE COURT: Overruled.

9 THE WITNESS: I don't remember specifically who
10 testified, but I know there were individuals who testified
11 that the perc tank was there at some point in time.

12 MR. LYNCH: Julianne, could you please pull up
13 Admitted Exhibit 5021?

14 DOCUMENT TECHNICIAN: (Complied with request.)

15 MR. LYNCH: Could you actually -- this is a
16 September 29, 1976 photo. And could you please enlarge the
17 tank farm area? Zoom in on the tank farm area.

18 DOCUMENT TECHNICIAN: (Complied with request.)

19 BY MR. LYNCH:

20 Q You see a feature in that portion of the tank farm,
21 Ms. Stout. Do you believe that to be the same series of three
22 tanks that are more visible in the 1977 photo?

23 A Obviously you can't see the tanks, but you can see the
24 shadow, so I think those are the same tanks.

25 MR. LYNCH: You can close out of that, Julianne.

1 DOCUMENT TECHNICIAN: (Complied with request.)

2 MR. LYNCH: Could you please pull up Admitted
3 Exhibit 5019? And zoom in on the photograph, please, the
4 entire photograph.

5 DOCUMENT TECHNICIAN: (Complied with request.)

6 MR. LYNCH: Thank you.

7 BY MR. LYNCH:

8 Q This is the November 4, 1975 photo we've looked at. And,
9 Ms. Stout, it's your opinion, I believe, that there is a
10 drainage ditch running along the side, the east side of the
11 rail spur, west side of the berm on this date, that's apparent
12 on this date where I've just drawn; isn't that correct?

13 A Yes.

14 Q And that the soils in that drainage ditch -- well, the
15 drainage ditch either has water in it or the soils in that
16 ditch are wet; isn't that correct?

17 A Yes.

18 Q And that we can tell that because they're dark? It's
19 darker than the surrounding soils, correct?

20 A Well, that's one way of that, and looking at it in
21 stereo.

22 Q And, Ms. Stout, we see this same feature on aerial photos
23 from this site through 1979; isn't that correct?

24 A Are you speaking of the ditch?

25 Q Of the ditch area, yes.

1 A Yes.

2 MR. LYNCH: For example -- Julianne, if you would
3 please pull up Admitted Exhibit 5027?

4 DOCUMENT TECHNICIAN: (Complied with request.)

5 BY MR. LYNCH:

6 Q This is a May 3, 1975 -- or '79 photo. You can see the
7 same, the same ditch feature there; isn't that correct?

8 A Yes.

9 MR. LYNCH: And could you please pull up Admitted
10 Exhibit 5028?

11 DOCUMENT TECHNICIAN: (Complied with request.)

12 BY MR. LYNCH:

13 Q And that's the 1979 photo that we've looked at more often
14 in this case, and, again, we see the same, the same ditch
15 feature; is that correct?

16 A That's correct.

17 MR. LYNCH: Now could you please pull up, again,
18 Admitted Exhibit 5033, which is the 1981 photo? And could you
19 actually zoom in on the tank farm, please?

20 DOCUMENT TECHNICIAN: (Complied with request.)

21 BY MR. LYNCH:

22 Q Ms. Stout, on direct I believe you were testifying about
23 a ditch feature that ran through there, correct?

24 A Yes.

25 Q And that feature, is it your opinion, that's in the same

1 location as the historic ditch that used to run outside of the
2 berm to the northwest corner, correct?

3 A That's a segment of that ditch, that historic ditch.

4 Q Okay. And now that same historic ditch, instead of
5 running out to the northwest corner area, runs into the catch
6 pond, correct?

7 A That's correct.

8 Q Ms. Stout, you don't see a pipe in this catch pond, do
9 you?

10 A I don't.

11 Q And you didn't see a pipe in the catch pond on any of the
12 dates of the photography you looked at, did you?

13 A I didn't.

14 MR. LYNCH: You can close out of this one, please,
15 Julianne.

16 DOCUMENT TECHNICIAN: (Complied with request.)

17 MR. LYNCH: Could you please pull up Admitted
18 Exhibit 5024?

19 DOCUMENT TECHNICIAN: (Complied with request.)

20 MR. LYNCH: This is the 1977 photo; again, the
21 September 6, 1977 photo.

22 And, Julianne, could you please enlarge that portion
23 of the photo?

24 DOCUMENT TECHNICIAN: (Complied with request.)

25 ///

1 BY MR. LYNCH:

2 Q I believe, Ms. Stout, that you talked of ditch, a ditch
3 feature that you believe is indicated by this dark feature
4 here, and then it runs into this portion of the ditch that was
5 draining on the east side of the rail spur, correct?

6 A Yes.

7 Q And then you said that they're adjoined by a low-lying
8 area; is that correct?

9 A Yes.

10 Q Isn't it true that in this photo, you don't see any
11 indication of liquid or wet soils along your ditch feature?

12 A That's correct.

13 Q And again, you didn't see any indication of liquids or
14 wet soils in that supposed ditch feature coming from the catch
15 pond in any of the photos you reviewed; isn't that correct?

16 A That's correct.

17 MR. LYNCH: Can you close out of this one, please,
18 Julianne?

19 DOCUMENT TECHNICIAN: (Complied with request.)

20 MR. LYNCH: Please pull up Admitted Exhibit 5036.
21 Would you please enlarge that photo, please?

22 DOCUMENT TECHNICIAN: (Complied with request.)

23 BY MR. LYNCH:

24 Q This portion of the devegetated area on that photo,
25 Ms. Stout, wouldn't you agree that that portion of the

1 devegetation could be remnants of devegetation that had
2 occurred before the berm was reconstructed in 1981?

3 A Could we go back to 1981, please?

4 Q Yes. 1981 is Admitted Exhibit 5033.

5 DOCUMENT TECHNICIAN: (Complied with request.)

6 THE WITNESS: That could be a remnant of the
7 devegetation in '81, but it means it would have not
8 revegetated over a period of two years.

9 BY MR. LYNCH:

10 Q And this same devegetation here, that could be a remnant,
11 wouldn't you agree, of the devegetation that had existed prior
12 to the time the tank farm berm was reconstructed?

13 A Will you look back to 1979, please?

14 Q Certainly. That is Admitted Exhibit 5029.

15 DOCUMENT TECHNICIAN: (Complied with request.)

16 MR. LYNCH: No, that is not the right exhibit.

17 THE WITNESS: That, looking at this --

18 MR. LYNCH: I'm sorry; 5024 would be a more clear
19 '79 photo.

20 THE WITNESS: Can we keep this one?

21 MR. LYNCH: Oh, I'm sorry, ma'am. Certainly.

22 THE WITNESS: Go back to the one that you just had
23 up that's '79.

24 DOCUMENT TECHNICIAN: (Complied with request.)

25 THE WITNESS: Yeah. If you look at this photograph,

1 you can see that that area that you described or that you were
2 asking me about is not devegetated on this date, on this '79.

3 MR. LYNCH: Would you close out of this one, please,
4 Julianne, and again pull up 5028?

5 DOCUMENT TECHNICIAN: (Complied with request.)

6 BY MR. LYNCH:

7 Q This portion here, Ms. Stout?

8 A Yes.

9 Q Ms. Stout, you were deposed a few months ago in this
10 case, correct?

11 A Yes.

12 Q And you recall at that deposition you and I went through
13 a series of these same photographs, and I asked you to mark
14 various features on those photographs that related to your
15 opinions. Do you recall that?

16 A Yes.

17 Q And we marked those as exhibits at your deposition?

18 A Yes.

19 Q I'm going to give you a transcript of your deposition and
20 Exhibit 3681 from that deposition.

21 Can I approach, Your Honor?

22 THE COURT: Yes.

23 MR. LYNCH: (Handing.)

24 Take this photo down, please, Julianne.

25 DOCUMENT TECHNICIAN: (Complied with request.)

1 BY MR. LYNCH:

2 Q Ms. Stout, the testimony you gave at that deposition was
3 true to the best of your belief, correct?

4 A Yes.

5 Q And the features you marked in these exhibits at that
6 deposition, those were also true to the best of your belief?

7 A At that time, yes.

8 MR. LYNCH: Please turn to the final page of that
9 exhibit, 3681. Julianne, could you please actually put that
10 page of the exhibit on the screen, Exhibit 3681, page 7?

11 DOCUMENT TECHNICIAN: (Complied with request.)

12 MR. LYNCH: And rotate it, please.

13 DOCUMENT TECHNICIAN: (Complied with request.)

14 BY MR. LYNCH:

15 Q This is again, Ms. Stout, the 1983 photograph you were
16 recently viewing, correct?

17 A Yes.

18 Q And you have got three areas marked in that photograph,
19 C in green, A in blue, and B in red, correct?

20 A Yes.

21 Q And isn't it true, Ms. Stout, that at your deposition in
22 this matter, you identified the area C in green as likely to
23 be remnants from the denudement we earlier had seen on the '79
24 photo?

25 A That's what it says in my deposition, yes.

1 Q And that was the truth, you believe?

2 A That's what I believed at the time.

3 MR. LYNCH: You can close out of that, Julianne.

4 DOCUMENT TECHNICIAN: (Complied with request.)

5 MR. LYNCH: Please pull up again Admitted
6 Exhibit 5028. And can you zoom in on the loading/unloading
7 area?

8 DOCUMENT TECHNICIAN: (Complied with request.)

9 BY MR. LYNCH:

10 Q This is the May 14, 1979 photo. Ms. Stout, you agree
11 that there's a berm on the south side of the tank farm in this
12 photo?

13 A Yes.

14 Q And we can see it? It's in the sunlight?

15 A Yes.

16 MR. LYNCH: Can you please close out of this and
17 pull up the Admitted Exhibit 5024 --

18 DOCUMENT TECHNICIAN: (Complied with request.)

19 MR. LYNCH: -- which is the September 6, 1977 photo.

20 BY MR. LYNCH:

21 Q And you'd agree again, Ms. Stout, that there's a berm at
22 least along the majority of this south portion of the tank
23 farm in this photo; isn't that correct?

24 A Well, I believe that it ends right there.

25 Q But runs through there, correct?

1 A Yes, it does. It runs back through behind the small
2 warehouse.

3 MR. LYNCH: And could you please pull up Admitted
4 Exhibit 5019?

5 DOCUMENT TECHNICIAN: (Complied with request.)

6 MR. LYNCH: This is the 1975 photo, and, again, can
7 you enlarge -- that will work.

8 DOCUMENT TECHNICIAN: (Complied with request.)

9 BY MR. LYNCH:

10 Q Now on direct I believe you agreed that there's a berm
11 here, a portion of the berm, because we can see it in the
12 sunlight, correct?

13 A Not, no, not just because we can see it in the sunlight;
14 because I determined where the boundary of the berm was.

15 Q And you'd agree that there's a portion of the berm here,
16 again, when we get out of the shadows into the sunlight,
17 correct?

18 A Yes.

19 Q And this, you'd agree, is a ditch with water in it
20 running immediately to the left of the loading/unloading area
21 that we can see in the sunlight, correct?

22 A I'm going to just turn off your red line for a minute.

23 Q Certainly.

24 A I'm not sure there's liquid in the ditch this far to the
25 south on this date. I know I saw liquid further down.

1 Q We can certainly see the ditch, though?

2 A Yes, you can see the ditch.

3 Q Okay. And it's your expert opinion that in the location
4 where there's no shadows, that we can see there's no berm,
5 correct?

6 A I'm sorry; would you ask me that again, please?

7 Q It's your opinion that the only place there's no berm in
8 this portion of it is in the shadows, correct?

9 A No. The berm is not complete in this area. You've got
10 just sort of mounds of material on either side of it. I think
11 in this area, it's not, it's not complete, either.

12 Q Would you agree there's berm here and here, and we have a
13 ditch here, correct?

14 A Yes.

15 MR. LYNCH: I have nothing further.

16 THE COURT: Continental have anything?

17 MR. DAVIS: No, Judge. Thank you.

18 THE COURT: Redirect?

19 MR. JOHNSON: Yeah. Very short, Your Honor.

20 Neil, could you go to the 1977 and 1979 photos, '77
21 first?

22 DOCUMENT TECHNICIAN: (Complied with request.)

23 (Discussion off the record at counsel table.)

24 ///

25 ///

REDIRECT EXAMINATION

BY MR. JOHNSON:

Q 5024, this is the 1977 photo, and counsel asked you, Mr. Lynch asked you -- why don't you blow up the berm area and that ditch on the outside.

DOCUMENT TECHNICIAN: (Complied with request.)

BY MR. JOHNSON:

Q Asked you if you saw any flow on the outside of that ditch. Do you see that? You recall that, right?

A The man-made ditch --

Q Yeah, the man-made --

A -- the straight segment?

Q -- correct.

A No, I don't see liquid in there.

Q All right. Do you see any liquid in the catch pond that day?

A No.

Q Would it make sense that there would be flow in the man-made ditch if there's no liquid in the catch pond?

A Nope.

MR. JOHNSON: Go to the 1979 photo, please. Let's go to that same area.

DOCUMENT TECHNICIAN: (Complied with request.)

BY MR. JOHNSON:

Q Again, Mr. Lynch asked you if you saw flow in the

1 man-made ditch on that date, and you said that you did not,
2 correct?

3 A That's correct.

4 Q Is there any liquid in the berm that day?

5 A No.

6 Q Would there be any flow in the man-made ditch if there's
7 no liquid in the berm?

8 A No.

9 Q Now going back to --

10 (Discussion off the record at counsel table.)

11 BY MR. JOHNSON:

12 Q In the last questions, counsel corrected me. I
13 apparently said, "any liquid in the berm." I meant in the
14 catch pond. The answer would be the same?

15 A Yes. I'm sorry. That's what I heard.

16 Q Yes. And counsel asked you about one of your deposition
17 exhibits. In particular, he had marked Exhibit 3681 and, in
18 particular, asked you -- I don't have that, myself, on my
19 machine, I don't think. But if you would pull that up, it
20 would be helpful, Exhibit 3681.

21 DOCUMENT TECHNICIAN: (Complied with request.)

22 MR. JOHNSON: And orient it, please.

23 DOCUMENT TECHNICIAN: (Complied with request.)

24 BY MR. JOHNSON:

25 Q And this is the, this is the one in which you were asked

1 by Mr. Lynch about A, B, and C, and C is the one in which
2 apparently you testified at your deposition that it was your
3 opinion that this portion of C was remnants from prior
4 devegetation or something along those lines; is that correct?

5 A That's what he said, yes.

6 Q Okay. As you sit here today, do you agree that that
7 portion, C, is just remnants from a prior devegetation?

8 A I think that it's probably a combination of remnants from
9 the devegetation, and, also, if there's -- the small little
10 impoundment in the corner of the fenced-in area, when that
11 reaches a -- if that overflows, one of the directions it's
12 going to overflow is along here, and so I think that
13 devegetation is also being contributed to by flow from that
14 little impoundment.

15 MR. JOHNSON: Thank you. I have no further
16 questions. Thank you, Ms. Stout.

17 THE COURT: You can step down.

18 Do you have a witness you can do in 11 minutes?

19 MR. JOHNSON: We could show a movie for 11 minutes.

20 THE COURT: No. We're going to take a recess.

21 Ladies and gentlemen, we'll be in recess until 8:30
22 in the morning. I give you the usual admonition.

23 8:30 in the morning.

24 THE LAW CLERK: All rise.

25 (Proceedings were recessed at 16:47:38.)

VOLUME 6 REPORTER'S CERTIFICATE

I, JoAnn Corson Bacheller, a Registered Diplomat Reporter and Certified Realtime Reporter, certify that the foregoing transcript is a true and correct record of the proceedings given at the time and place hereinbefore mentioned; that the proceedings were reported by me in machine shorthand and thereafter reduced to typewriting using computer-assisted transcription; that after being reduced to typewriting, a certified copy of this transcript will be filed electronically with the Court.

I further certify that I am not attorney for, nor employed by, nor related to any of the parties or attorneys to this action, nor financially interested in this action.

IN WITNESS WHEREOF, I have set my hand at Billings, Montana this 27th day of April, 2010.

/s/ JoAnn Corson Bacheller

JoAnn Corson Bacheller
United States Court Reporter